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MERVYN ARCHDALL, M.D., Ch.M. (Sydney), F.R.A.C.S.

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An Address.[1]

By W. N. ROBERTSON, C.M.G., C.B.E.,
President, Queensland Branch of the British Medical Association.

I CAN but feebly indicate to you my pride that you have once again, after many years, invited me to occupy this chair, which, incidentally, I made with my own hands. As the years pass away and the shadows begin to fall, it is quite normal and natural that a new generation should arise which knows not Joseph. Though I have numerous qualms about the responsibility involved and my doubt that I am able adequately to fill the position, my vanity, I fear, impelled me to accept your so generous honour. I feel the responsibility more greatly when I think of the efficient way in which Dr. Price has carried out the duties of the office during the last twelve months. I have sat in silent admiration of the patient way he has dealt with all our troubles, and I think we owe him a very deep debt of gratitude for his wisdom in solving many of our difficulties. He has carried round with him what as a little boy I heard described as the oiled feather.

Being not quite averse to a scrap myself, I am quite appreciative of the value of sweet reasonableness in smoothing down the other fellow.

The coming year, I fear, is likely to be one of great difficulty for the profession in Queensland, and it will require much patience, wisdom and "cohesion" amongst our ranks if we are to come through without serious damage to the prospects and prestige of the profession. There is a class of mind which seems more inclined to pull down than to build up, and I fear that the Government has been

[1] Delivered at the annual meeting of the Queensland Branch of the British Medical Association on December 14, 1934.

ill-advised from some quarters and that it may adopt an attitude towards the profession that may be damaging to it and also have a dire effect on the well-being of the community.

I dread to think of the time when the profession may be converted into a body of civil servants. The stimulus of ambition would be removed and there would arise a position in which the practitioner would be content to do his day's work and leave it at that. We have a sample of that in the national insurance scheme at home. It is below the standard of club practice as we know it here. It is not every day that we find men in public health positions of the quality and energy of our Government medical service. There is no better general practitioner of medicine in the world than the Australian general practitioner. I am filled with admiration of the way in which he fulfils his task under all sorts of difficulties with time and space and lack of assistance. He has to be a general specialist, and well does he fill his rôle. I had some years of practice in the country and well know of what I speak.

Yet somehow in some quarters there is a feeling of hostility to the profession. Is it envy of the small untrained mind for the mentality and education of the doctor, or do we deserve it sometimes? I believe, indeed I know, that the few make a trade or business of it, forgetting the holy obligations they undertook when they joined our ranks. They have forgotten or deliberately outraged that wonderful code of ethics which has been our pride and our wonder for twenty centuries. I do not think, however, that our carping critics appreciate the generous service that is gratuitously given to the poor of the community. They do not understand the constant help that is given, many and many a time whilst the donor is himself physically unfit to carry on, just because he believes the duty is his. This all sounds somewhat like a defence of the profession, but we do not need that. All nice thinking people appreciate our service to humanity, and I would grieve to think that the fountain of charity was closed to the needy. You all remember the hunting doctor in the old song: "For the rich he prescribed and took pay, to the poor he advice gave away." Well, we all, I think, look upon this as an equitable division of our energies. I fear that the projected alteration in hospital administration, of which I have been told, will work out badly for the patient and badly for the doctor. I dread the sapping of the independence of the members of the community. Is it lifting up or pulling down? Paraphrasing Robbie Burns, a great champion of the under dog: "An independent mind's the noblest work of God." I hope that some reasonable *via media* may be found between the Government and the profession by which a sound, decent, working arrangement can be come to. As one is as yet dealing with rumours only, I need not labour this subject too much. However, I would ask of every member to stand loyally by the association, which ultimately is our mouthpiece, and see that no weakening in our ranks may lead to a *débâcle,* and devil help the hindmost.

This brings me to another aspect of this matter. Having been closely associated with the university for twenty years or so, I have been full of hope that in my time there might be established a school of medicine. Recently, within a year or two, a scheme was propounded for the establishment of a school of medicine and allied sciences. As submitted, the scheme seemed to me impossible without imposing special taxation in a wrong way, and I may say it was turned down. But suppose a medical school is established, where are we to look for the education of our students if the honorary system is abolished? Unfortunately the numbers of patients attending the general hospital has become so great that the present system has almost broken down. The strain on the staff is so excessive that it would be a fair thing to grant some honorarium partly to compensate them for their service. I have done thirty-four years' active honorary service at various hospitals and I know that there is a limit to what one can do. I have often reached the limit of endurance and have had to abandon work for the day from sheer exhaustion. That would be the difficulty, supposing a whole-time paid staff was appointed. To overtake the work the staff required would be so large that the cost would be prohibitive, and unless the staff was sufficiently large the quality of the work would seriously suffer.

The problem is a serious one and requires grave consideration by hospital authorities and staffs. It seems that the only solution is to appoint a bigger staff of honorary medical officers or to grant them an honorarium which would be slight return for attendance on more days. It does not follow that the man who holds a full-time job in the hospital is capable of teaching students. And this leads me on to another controversial subject which may bring me some caustic criticism. I fear that I hold what may now be deemed heterodox views on medical education. I think that the first three years of the course are devoted too completely to the basic sciences and students are scourged along the thorny path to knowledge of subjects which in themselves are admirable foundations to medicine, but which are, in my thinking, carried too far, to the exclusion of what is after all the object of our training—a knowledge of disease, its treatment, and a knowledge of human nature, so valuable throughout our whole career.

I have praised our general practitioner, and I continue to praise him, but would not his early days in practice be easier, his help to and understanding of his patient more complete, had he been more solidly trained to observe and to rely less upon the laboratory and X ray specialist? I feel strongly that every specialist should have had some years' experience of general practice, so that he is enabled to envisage the patient and his complaint as a whole; so also I should like to say that I think every professor or lecturer in medicine should have gone through an apprenticeship of some years of general practice. Our teaching seems directed to turn out specialists, whilst we forget that 80% of the profession is composed of general practitioners.

Some may say that our aim should be to turn out practitioners, masters in every department, but no normal mind can hope to compass all the ramifications of medical knowledge. The very number of specialists is an answer to that question. We should aim to develop a practitioner who has the opportunity of practical clinical training, who has a sound foundation in anatomy, physiology, pathology and biochemistry, upon which he can build the superstructure of clinical education. Thereafter men with a special bent of mind can develop their talents in the direction of the specialty congenial to them.

I wonder if it is prejudice that inclines me to the view that the education we received in the Edinburgh Medical School of my day was more valuable than most. Certainly the graduates of my old Alma Mater have taken high positions in every part of the world, both as teachers and practitioners. Observation with all our senses was dinned into us before we were allowed to fall back on the adventitious aids of the laboratory *et cetera*. A cultured imagination was our great aim. A sort of spiritual vision was bred up in one which seemed to summarize all available material into a Scot's haggis of thought. Then this haggis was flavoured with the sauce of the laboratory and a complete and satisfying dish of knowledge was produced, which, after careful digestion, nourished a sane and helpful outlook upon the problem involved. These recollections of my student days tempt me to embark on a chat on an Edinburgh eleven, to plagiarize Barrie.

I think it is good for us to look back at times and to reassess the debt we owe to those great men who taught us so much and who did so much to mould our minds in the way of right thinking and, indeed, right living. Though we did not always exhibit the respect for our teachers which their merits deserved, in our heart of hearts we knew that our privileges were great and manifold, to sit at the feet of such learned preceptors.

Edinburgh's reputation as a medical school served as a magnet to draw to her staff all the most brilliant teachers in the medical world. The emoluments were generous, even for these days, as the staff shared in the fees paid by the students. This probably added to the attraction. Be it as it may, we felt that there was no better teaching anywhere than at our old Alma Mater. May I touch lightly upon the careers of some of the men who made history for us? Our course began with botany, chemistry and zoology.

In my day botany was taught by Bayley Balfour, who succeeded Alexander Dickson, a cousin of our friend Dr. John Lockhart Gibson. He was a son of "Woody Fibre", whom Dickson succeeded. He was kindness itself and made our country jaunts in search of specimens delightful holidays, during which we imbibed, almost unconsciously, much knowledge of the botanical world.

The Professor of Zoology was Cossar Ewart, an Edinburgh graduate also, who graduated in 1874 and who in four years was appointed professor in Aberdeen. Four years later he was appointed professor of natural history in his old university; surely a wonderful record for so young a man! He visited Queensland a few years ago, when we had the opportunity of entertaining him at dinner, and it was a great night for his old pupils. His services to his country in connexion with fisheries, wool growing *et cetera* are inestimable. The man who makes two blades of grass grow where one grew before is said to deserve well of his country. Cossar Ewart made six pounds of wool grow where two grew before on the backs of the Shetland sheep. That was applied science if you like, and was but one of the many beneficent schemes by which he helped his country.

Our professor of chemistry was Crum Brown; a brother of John Brown, of Haddington, the author of "Rab and His Friends", *"Horæ Subsecivæ" et cetera*. He was a pupil of my old school, the Royal High School, and a graduate of the Edinburgh University. He was an M.A., M.D. (Edinburgh) and the first D.Sc. of the London University. He began his professional career as an extra-mural lecturer in 1863, as so many of our Edinburgh teachers did; and he came to the chair in 1869. He had poor control in his classes and, though we all were devoted to him, he occasionally had a rough time. The kiltie regiments stationed in the castle had an unfortunate habit of marching past the lecture room to the music of the pipes or the drums and fifes, and it was scarcely to be wondered at that four hundred odd students sometimes fell from grace and kept time to the tramp of the marching Highlanders. On the whole, I think we learned the most of our chemistry in the practical laboratory. "Crummie", as we affectionately dubbed him, had a wonderful mind. His knowledge of mathematics, philology, modern languages, including Russian and Chinese, shows the width of his range, and he was rumoured to have set the paper in Sanskrit during the illness of his colleague whose job it was. He received the Keith Prize for his research into rotation and the anatomic relations of the semi-circular canals. Also he could tell a story, though sometimes he laughed so much at the joke that he could hardly get the story out.

Our next step was to anatomy, physiology, pathology and *materia medica* and therapeutics.

Our professor of anatomy was William Turner, afterwards Sir William, a great man and a great teacher. He was at "Barts" from 1850 to 1854. He was a gold medallist of the London University in 1854, took his M.R.C.S. in '53, his M.B. (London) in '57. In 1854 he was chosen by Goodsir to be his senior demonstrator of anatomy. Owing to the ill-health of that genius, Turner carried the major burden of preparing for the lectures and of the teaching for thirteen years, when, on the lamented death of that great man he succeeded to the chair.

There was no nonsense in Turner's classes, but sound, solid work, even when at times we were half smothered with the odour of the whales with which he used to play. I remember his demonstration of

the heart of a whale; when he opened the pericardium he said: "Gentlemen, you perceive the smooth, white, glistening appearance of the serous surface." He rolled his "r's" like a Borderer. As we approached his lecture room we always knew when a whale had come ashore. He was a great comparative anatomist and he wrote largely both books and papers on anthropology, teratology, pathological anatomy, physiological chemistry, the anatomy of whales, sharks, seals *et cetera*.

I was persuaded to do my practical anatomy with Symington at Minto House and never regretted it, although by taking extra-mural courses our university record was rather shattered. Symington was a devoted teacher, under whom it seemed impossible not to learn. He was assisted by Whittaker, who built up a reputation as possibly the greatest actual teacher of anatomy in Edinburgh.

In physiology we fell into the hands of that extraordinary genius, Rutherford. He was a product of the Scottish borders, of a race of dour fighting men who stood by Wallace and Bruce in the old fight for Scottish independence. They were also not above taking a hefty toll of other people's cattle on either side of the border.

He graduated in 1863, held the usual hospital posts, taught anatomy in Surgeons' Hall for a year, went abroad for another, then, after serving as university assistant to Professor Hughes Bennet for four years, at the age of thirty he was appointed professor of physiology at King's College, London. After five years he succeeded his old master, Hughes Bennet, in the chair of physiology in Edinburgh. He was the first professor to devote himself solely to teaching and physiological research, with the result that he made his chair first in Great Britain. In addition to his reputation as a physiologist, he was credited with being equally distinguished in music, and no smoke concert was complete without a song from Rutherford, generally of his own composition.

In pathology it was our privilege to "sit under" W. S. Greenfield. The number of his distinctions is so great that I will not weary you with them; suffice to say that he came to Edinburgh from London with a great reputation as a teacher, well qualified by research as well as by clinical experience at several hospitals.

It was my happy experience as a senior to be appointed by him one of his student demonstrators, and subsequently, because of that, I was appointed to the pathological department of the infirmary, where for twelve months I did the *post mortem* examinations, afterwards examining microscopically all the specimens removed at the autopsies and preparing the reports under the guidance of Mr. Barrett, afterwards Professor of Pathology at Belfast. That was one of my hardest years, as the work occupied practically all the afternoons, but it has been an abiding happy memory, not only of a valuable training, but of great kindness from my chiefs.

Materia medica and therapeutics we learned from T. R. Fraser, possibly the greatest pharmacologist in Great Britain. He also taught clinical medicine, and in the wards of the infirmary he had excellent opportunities of proving the value of his researches into the action of many new drugs. His thesis at graduation was upon the action and uses of Calabar bean, which at once marked him as an accurate and scientific investigator. He was then only twenty-one. He was the first in Britain to use analytical methods in pharmacological research, and he gave a great impetus to this method of investigation. I well remember the stir that was created by the announcement of his researches into the action of strophanthus. I received my first knowledge of the use of cocaine from him, a drug which I have used in my practice I may say almost by the pound. As physician he was exhaustive and meticulous in his work, kind and gentle with the patients, but with the offending student he had a mordant wit that bit like a Syme's knife. It is said that his most scathing periods arose from some gastric disturbance, from which we prayed that he might be delivered at examination time.

Our second professional examination brought to a close the trials of this period and the last hurdle, the final, loomed ahead, but during this period we were admitted to the infirmary as dressers and clerks, coming into close contact with patients through taking histories, gradually absorbing through every pore the atmosphere in which we were to spend the rest of our lives.

There were not many spare moments when we entered this last phase of the race. Medicine, surgery, midwifery, gynæcology, medical jurisprudence and public health made a very substantial meal, but we were not compelled to absorb our sustenance all at the one table. There was a galaxy of talent giving extra-mural diets which were sometimes more appetizing than the pabulum provided at the university table; so it was that, though we might attend the set lectures, we might seek clinical nourishment outside.

In medicine Thomas Grainger Stewart gave us one hundred lectures, and though today the tendency is to do away with the set lecture, I still look back with extreme gratitude to Sir Thomas, as he became, for a wealth of information and training in methods of observation and accuracy. Bacteriology was in its infancy in those days, and he was not slow to appreciate the value of research in this new science, and it was during my year with him that he remodelled his teaching, taking into consideration the effect of microbic organisms in diseases and taking certain types as representative of differing ports of entry and different manifestations of their action.

He had an unusually clear and painstaking method of lecturing, and his early work as a lecturer in pathology made a sound foundation for his teaching. Though he was extraordinarily proud of his position as physician to the Queen and, one might say, a grand person, he was wonderfully approachable and kind to students. It was quite a sight to see him going out to a consultation on

foot with his butler following at a respectful two paces behind, carrying the well known black bag.

After much and anxious consultation I clerked in Wyllie's wards, his reputation as a clinical teacher attracting large numbers of students. I never regretted that step. John Wyllie, afterwards professor of medicine, was a great teacher. He had the faculty of making you put your best into your work and of drawing the best out of you. He was the first physician I knew of who made the use of the ophthalmoscope and the laryngeal mirror matters of regular routine in the examination of patients. At this time a colleague and I became rather interested in nerve and brain lesions, so much so that he turned the nerve cases over to us for exhaustive examination and then he had us up at the clinic to demonstrate the cases as we saw them, and then he, in the most kindly and pleasant manner, pulled our arguments to pieces if he did not agree and submitted us to considerable good-natured chaff at times. I think his methods with us were invaluable. It was teaching us to see, to feel, to inquire, to think. An exhaustive history was a *sine qua non* to start with. His waistcoat used to be well peppered with snuff, though none of us ever caught him in the act of using it.

Byron Bramwell held clinics on Saturday afternoons and it proved the brilliance of his teaching that the great mass of students attended regularly, as also did many qualified men who were near enough to take advantage of his wonderful teaching.

When I look back on these gatherings I can remember how we high and mighty senior students were inclined to look down on the humble general practitioner who came to sit at the feet of this great teacher. If one of us had been dumped down in a cottage with a bad case of diphtheria or typhoid fever, how badly would we have compared with these hard-worked, but keen, students.

At this time also Koch made his great discovery of tuberculin, and Robert Philip went over to Germany and returned armed with a Pravaz syringe and a bountiful supply of the heaven-sent remedy. He held Saturday afternoon clinics also, and we saw many victims of tuberculosis receive generous doses of the healing remedy. We rarely saw them again at subsequent clinics. Over-dosage had the result you may imagine.

These were inspiring days, however, and the teachers and environment stimulated enthusiasm amongst most of us. The golden age of medicine and surgery was in the making and we glowed with every fresh discovery.

John Cheine ("Honest John") professor of surgery, was beloved by all. He was a teacher at heart. He graduated with honours, was resident under Syme, did Paris, Berlin and Vienna, as most graduates who could manage it did, and became demonstrator in anatomy under Goodsir. Also, as was the custom with ambitious and brainy youngsters, he began an extra-mural course in surgery in the extra-academical medical school. He speedily attracted large numbers of students, over 150, I believe, and established a reputation as a brilliant and effective teacher. He was appointed assistant surgeon to the infirmary, examiner in anatomy, and held other important posts before being appointed professor of surgery on the death of Professor Spence. His lectures were models of clarity, and his clinical demonstrations in the side-room and at the bedside evidenced his unfailing devotion to the search for truth. One could tell many stories of the human side of this kindly man, who put patient first, students and hospital second, and self last.

Thomas Annandale, professor of clinical surgery, was another type. Small, dapper, alert-looking, with a jaunty air about him, he was equally popular with Cheine. With an immaculate frock coat, blue fly-away tie with white spots, and tall hat set at a jaunty angle, he looked an attractive figure. Behind all this was a wonderful knowledge of his job and a pair of uncanny hands when he started to operate. Alas, he had not thoroughly mastered the Listerian technique, however. I clerked with him and finally had charge of Ward 1, to which all operation cases that developed a red streak were passed on in the first instance.

Before entering the theatre he exchanged his natty frock coat for another that hung behind the door, a relic of many a fray. He tucked up the sleeves, bathed his hands in carbolic lotion and started in. No doubt he was a wizard with his hands, but they were not always what we would call surgically clean. A tank of warm carbolic lotion was hung on the wall, and periodically he stood back and the wound was liberally hosed with this lotion. He brought back from America a khaki coat that was washed, if not boiled. I think his rapid work and gentle handling of the tissues helped his results. Lawson Tait was at this time preaching asepsis, but his teaching had not yet taken hold. I remember him coming to Edinburgh and demonstrating his methods. It was interesting to see him hooking out an appendix with his short, fat fingers through a very tiny incision. I remember Annandale doing an "acute mastoid" and being very proud of his method, which was to bore a hole into the mastoid antrum with a carpenter's gimlet and drain it with a spiral wire drain. To open an abscess he would call for a point and a porringer, and with the good old Syme's knife, cutting from within outward, he would demonstrate the almost painless method without an anæsthetic. To see him chop off a tonsil with a volsellum and knife would horrify us today. Still he and such as he laid the foundations for the refinements of present-day surgery.

Annandale published many contributions to surgical literature, many of them of great value. He lost nothing by being assistant to Syme.

In addition to the professors there was a galaxy of younger men who added lustre to the teaching staff of the Edinburgh School. Caird and Cathcart ran a class of surgery, where one learned much of surgical anatomy and we were taught about the handling of fractures, bandaging, and so on.

Styles and Thomson also had a coach class, which I attended. One little thought in those days that Harold Styles would come to be looked upon by competent authorities as the greatest surgeon of his day. He lived and breathed surgery and, I believe, dreamed of it during his sleep. In addition, clinics were held by John Duncan, Maclaren Miller, Hodsdon, Wallace and others. All of these clinics were well attended, some naturally attracting larger audiences than others. This distribution of teaching produced a sort of competition between the surgeons and inspired research and thoroughness right through. At this time Byron Bramwell was working on the thyreoid, and I can remember Miller planting a sheep's thyreoid in the chest of a man in the hope that it might become permanently established and function. It was not yet learned that monkey gland or human gland was the only gland to flourish in that medium.

Tuberculous peritonitis was treated by opening the abdomen and letting in fresh air and light and shutting it up again. Appendicitis had not assumed the importance that it has today and, indeed, the significance of the appendix in peritoneal inflammations of that region was not completely grasped. Typhlitis was the term in regular use, and McBurney's point had not then entered into our nomenclature.

We constantly heard stories of the pre-anæsthetic days from our teachers, when rapidity of action was imperative. Spence was reputed to amputate at the thigh in eleven seconds. Littlejohn's description of the operating theatre was much more graphic and horrifying than that found in "Rab and His Friends".

We sat at the feet of Alexander Simpson for midwifery and gynæcology. He was a quite learned man and an excellent surgeon, though he was eclipsed by the great reputation of his uncle, Sir J. Y. Simpson, the discoverer of chloroform anæsthesia. He wore lengthy Dundeary whiskers, and with finger tips together he used to bob up on his toes as he talked. On me this mannerism had an annoying effect and somehow I did not take in his words of wisdom as I should. To rectify my deficiencies I took out a class with Haultain, a young and brilliant assistant to Croom. Haultain was a delightful and clear lecturer and smoothed the path for us in a wonderful way. He eventually became the leading gynæcologist in Scotland. He it was who introduced me to Halliday Croom's clinic. Croom was also an ideal teacher. My first experience was in the side-room of the ward. He grabbed me by the arm, saying: "Tell me what is the matter with that woman." It proved to be a polypoid fibroid projecting from the cervix. Then: "What would you do with it?" In those days we possessed a fearsome instrument called an ecraseur, with which I rightly suggested that this should be shorn off. Again grabbing me by the arm, he marched me off into the ward and ordered me to examine a patient in a bed; malignant cervix was my diagnosis, with which he was good enough to agree; and: "You won't forget that as long as you live" were his last words.

Well I think that was teaching. So stirred was I by my first experience that I decided to present myself at every clinic. Haultain explained that the "Old Man" would growl like anything, but would forgive me soon. When it dawned upon him that I was exceeding my issue, his remark was: "I suppose I must ask you to dinner." He did appreciate the implied flattery of my earnestness. He used to wear an evening tail coat of sorts in the hospital and the flat-brimmed French tall hat in the street.

Peter Young was my obstetric mentor in the practical work we did in the slums, but hated to be called out to a case. I had quite a little obstetrical practice and was often "engaged" in the usual way. This gave me an opportunity of an *ante partum* overhaul of the patient, and if I had any doubts I used to consult Haultain, who would advise me if he did not approve of my suggested treatment. Can you wonder that we rather idealized those men who were so helpful and kind to us?

I took medical jurisprudence and public health with Henry (afterwards Sir Henry) Littlejohn. He succeeded to the chair of medical jurisprudence at the age of seventy-one, on the resignation of Sir Douglas Maclagan, and held the chair, I believe, with great acceptance for nine years. He was appointed the first medical officer of health for Edinburgh in 1862. He made a report on the sanitary condition of Edinburgh in 1865, proving himself a sound and scientific sanitarian. He procured also the notification of infectious diseases by act of parliament through the city council, and through his energy he caused the disappearance of typhoid fever and typhus fever from Edinburgh before any other large city in Great Britain. Incidentally, in my slum work as a senior student I spotted a case of typhus in the Cannongate and gained much, possibly easy, kudos for so doing, as no case had been seen for some years.

Littlejohn was a most popular lecturer, alert and nimble, flavouring every fact of importance with an appropriate anecdote which fixed the facts in your mind. His long experience as police doctor provided him with unlimited material for illustration, and there is no doubt that in his case the set lecture was of the greatest value. He took us out on Saturdays to inspect abattoirs, water supply, and buildings under construction, entertaining us meanwhile with merry chat, well seasoned with practical instruction.

The eye department was under the direction of Argyll Robertson, who had made his name known to the world by his description of the eye reactions which bear his name. A course of diseases of the eye was not compulsory, and I fear that many of us neglected the opportunity to improve our knowledge in that direction.

The ear, nose and throat department was conducted by the well known Peter McBride, and I have to confess that, although this has been my work

throughout the major part of my medical career, I never seriously followed his teaching whilst I was a student. I am happy to say that during my last visit to Edinburgh, nine years ago, I saw better work done there by J. S. Fraser and others than I saw in any other clinic I visited. It was an inspiration to see J. S. Fraser exhaustively examining every patient in the out-patient department throughout a long afternoon. One had a real lesson in thoroughness and could understand the basis of the scientific work which has made his name so famous.

We did "skins" with Allan Jamieson. My most outstanding memory of this subject is the "lang nebbit" names applied to the most insignificant looking lesion of the skin.

Perhaps I have bored you enough, but if you have been half as interested as I have been happy in thinking of these wonderful men who were our joy and our dread, then I am content. We treasure their memory with affection mainly. I must say I got a fair deal and perhaps a little more than I deserved from every one, and when we add to our memories the jolly good fellows with whom we have worked and played during those exacting, yet very happy years, I feel that we can only rejoice that we were privileged to partake of the bounty of our hoary old mother's table and to thank God that our lines were cast in pleasant places.

May I beg of you all to stand by the good old centenarian, the British Medical Association, during the coming year. Our gatherings together all help us to know more and to work better and to render us more useful to the community which we serve. And the fellowship of our meetings together helps us to think better of each other, to rub off the corners and smooth down the bristles that make for irritation and dislikes at times. And withal let us cherish the memory of the great ones who have gone before and endeavour to follow in their footsteps in the quest for truth.

CONCERNING THE ROLE OF HEREDITY IN DIABETES MELLITUS: I: THE INCIDENCE AND CHARACTER OF HEREDITARY DIABETES.

By KEMPSON MADDOX and MADELEINE SCOTT,

From the Department of Medicine, Sydney University, and the Diabetic Clinic, Royal Prince Alfred Hospital, Sydney.

IN an era of increasing interest in preventive medicine the question of the part played by inherited factors making for the predisposition to or the manifestation of disease in a given set of circumstances has become of vast importance. While certain inheritable derangements such as colour blindness, albinism, alkaptonuria *et cetera* fulfil with precision all the Mendelian requirements, irrespective of race or clime, many less clearly defined and less localized maladies are apparently dependent to a greater or less extent upon inherited factors and await further elucidation. Among these appear metabolic derangements, such as *diabetes mellitus* and *insipidus*, gout, "rheumatism", essential hypertension, chronic Bright's disease *et cetera*, all of which will no doubt in time receive the searchlight of modern genetic knowledge and analysis full upon them.

The data required for genetic elucidation today ought to be very detailed, dependable and exact. They can be collected only by patient and persistent questioning by a worker in a special clinic dealing with the disorder under examination or, better still, with the aid of the family physician with his unique capacity to verify the information supplied.

We have had the advantage of close contact with the patients attending a large diabetic clinic and have endeavoured to avail ourselves of this opportunity to investigate the incidence and character of the transmission of the diabetic taint in the poor classes of this city. Whether our figures are applicable to Australia as a whole it is impossible to say. The larger families of the poor are much better suited to a genetic analysis than the limited progeny of the better classes. Racial and climatic differences are known to affect the incidence and severity of *diabetes mellitus*. The larger numbers attending the clinics of Germany and America are unobtainable here, but with the material at our disposal we have set ourselves to answer the following questions as best we can: What is the proportion of members of our diabetic population who present a history of the disorder amongst blood relatives? Is this comparable with the percentages reported by observers elsewhere? What is the incidence of a history of diabetes in a control group of non-diabetic individuals? Does the occurrence of the disease conform to any Mendelian ratio and which sex plays the greater part in the transmission? Is there any evidence of the existence of assortative mating? Is the gene for *diabetes mellitus* linked to those of constant features of body contour, complexion, sex, or of those carrying predisposition to any other diseases, for example: cancer, asthma, other glandular disturbances *et cetera*? What is the age of onset, character, severity, mode of death and duration of "inherited" as compared with "sporadic" *diabetes mellitus*? Is any prophylaxis possible from the eugenic standpoint?

The greater incidence of diabetes in the blood relatives of the sufferers from *diabetes mellitus* than in the community as a whole, has been proved beyond all possible question in the continents of America and Europe. Many accounts are available of the numerical extent of this increased incidence, based chiefly on the percentage of a given population presenting a history of affected forbears, siblings or children. Table I indicates the sources of these figures. It is important not to place too much emphasis on the figures of a single observer, unless it is known that great care and repeated direct questioning have ascertained the existence of all possible cases of diabetes, however mild, among relatives. Joslin[1] in his own series

excludes what he calls the "potential diabetics". On genetic grounds, these must be included and would bring the total percentage of patients with a history of diabetes among blood relatives in his complete series to 59%.

TABLE I.

The Hereditary Fraction in Diabetes.

(Percentage of diabetic population giving a history of affected forbears, siblings or children.)

Author.	Date.	Percentage.
Thirteen authors, including Joslin, averaged	1906–1927	19·7
Priesel and Wagner	1929	36·0
Cammidge	1928	28·0
Labbé	1931	35·0
Wendt and Peck		14·8
Hoogslag		43·0
Severinghaus		20·4
Average		28·1

The only writer whom we have found to deny the transmissibility of diabetes is Buchanan,[2] who showed a lack of appreciation of the difficulties of the question and made his statement on the non-fulfilment of the full Mendelian ratios.

It will be observed that some of the older statistics vary from the more constant proportion of about one-fourth found by more recent inquirers. Inexact diagnosis, ignorance, or deliberate concealment of parents' or grandparents' ailments probably render the earlier figures less reliable and, of course, may affect our own.

We have first attempted to elucidate from the data obtained in our community of 250 Australian diabetics the points just discussed.

The number giving a history of diabetes among blood relatives was 85 or 34%. This agrees closely with the figures of Priesel and Wagner[3] and indicates that the magnitude of the operation of the inherited factor predisposing to diabetes is in this country probably of an order similar to that which is obtained in Germany. These figures are entirely concerned with adult diabetics. Much higher values are found in children. Priscilla White[4] reported 39% in a series of 208 children as showing a history of diabetes, and in 72 children who had lived ten years or more a history of diabetes was found in 50%.

The second point raised, namely, whether the incidence of a history of diabetes in any blood relatives is higher in a diabetic than in a non-diabetic population was also investigated. Two hundred and fifty consecutive non-diabetic hospital patients were questioned as to the presence of *diabetes mellitus* in their parents and siblings; 27 or 10·8% replied in the affirmative. The only other writers who have investigated this point are Pincus and White,[5] whose figures were 10·46% in a series of 153 patients.

Our numbers are too small to be of much statistical value, but they are very reliable, since great care has been taken in interviewing as many relatives of the patient as were accessible and in confirming the diagnosis of diabetes in hospital records, and even by communication with relatives in other countries—advantages which are less practicable with a series of over four figures. Naunyn[6] said that the more carefully he inquired into the family history, the more frequently did he obtain a history of diabetes. It may be that this is one reason for the higher total incidence in our series than in others of greater magnitude.

The number of generations accurately traceable was as follows:

1. In 73 families in which one parent was affected and the other parent presumably normal, and in which the offspring numbered four or more individuals, the total first filial progeny numbered 474 persons, of whom 53 were affected and 421 unaffected.

2. Only three families were observed in which both parents were affected. In one case the only child was affected and died at an early age; in one mating sixteen individuals resulted, all presumably normal, who in their turn produced 27 normal individuals; the third mating resulted in eight individuals, one of whom was affected and the other seven of whom were apparently normal. The one affected individual produced one normal child who now has one normal offspring.

3. In thirty matings in which neither parent was affected, a total number of 197 individuals resulted, 53 of whom were affected (Table II).

TABLE II.[1]

Matings.	Families (n_g).	First Filial Progeny. (Four or more Individuals.)	Affected.	Unaffected.
$R \times H$ (one parent affected, the other a carrier, though apparently normal)	73	474	53	421
$H \times H$ (neither parent affected, both carriers)	30	197	53	144
$R \times R$ (both parents affected) ..	3	25	2	23

In an analysis of random samples of 73 matings of the $R \times H$ type, that is, where one parent only is affected and the other presumably normal, 45 such families showed no diabetes in their immediate offspring; 13 such matings produced one diabetic child each; eight produced two diabetic children each; four produced three each, and three produced four diabetic children each.

Genetic Analysis of the Present Figures.

The next questions are more difficult to answer as they concern the mode of inheritance. Most earlier authors have neither committed themselves to an exact genetic analysis of their results nor ventured to suggest any definite mode of transmission. Cammidge,[7] on experimental grounds and with the doubtful support of a few human pedigrees believes the Mendelian postulates for

[1] H = heterozygote; D = dominant; R = recessive.

recessives to be fulfilled, and further considers hypoglycæmia also to be transmitted in like manner. His experiments dealt with strains of mice exhibiting a "high" and "low" blood sugar content respectively, but they lack confirmation, and the difficulty of deciding what the significance of a "high" or "low" sugar in the rodent really is will be appreciated by a perusal of Macleod's latest summary[8] of the enigma of carbohydrate metabolism.

The work of Pincus and White[5] is far more convincing and represents in our opinion the most notable contribution we have encountered. These authors had the advantage of having at their disposal a very large series of careful diabetic histories and life expectancy tables, which are at present unavailable for this country. Much as we should like to copy the expectancy tables of Pincus and White for each decade,[5] we have not the data of a sufficient number of cases showing the age of onset nor statistics of vital expectancy for New South Wales. The high incidence of Semitic stock in America would alone render our results valueless.

Pincus and White assume that the potentiality for diabetes is inherited as a simple recessive, whatever part is played by the environmental factor; and they obtained probability figures for their "hereditary" group which were quite in accordance with Mendelian expectations for this mode of transmission.

A number of investigators, therefore, suspect that the proportion of diabetes in the group with affected blood relatives is such as is to be expected if the disease were inherited after the recessive Mendelian fashion. William Allan[9] has analysed Joslin's figures[1] for the incidence of declared and potential diabetes in the general population (1·4%) and shows algebraically that this is about the expected incidence assuming recessive transmission. Wright[10] follows Cammidge[7] in believing that diabetes, when severe in the young, is frequently a recessive trait. Joslin[1] considers that hereditary diabetes in the young is mild and of good prognostic omen.

General Results.

Transmission by Dominant.

No support was offered in our investigation to frequent propagation as a single dominant gene substitution. Isolated suspicious pedigrees are shown in Figures IV and V. But it may be pointed out that they are not inconsistent with a recessive transmission. It may be noted that in all these instances the onset of the disease was at about thirty years of age and of a severe and outspoken character, with an average duration of about ten years. The patients were all fat, fair and moderately large eaters.

If both families have a transmissible form of diabetes, then 100% of the offspring should have the disease. We have not seen this occur in families of over two in the first filial generation. We have been unable to recognize the mild form of senile diabetes which, according to Cammidge[7] and others, is transmitted as a dominant.

Transmission by Recessives.

Even a cursory inspection of our pedigrees shows the distribution of affected individuals to be "familial", that is, tending to occur most frequently as sibs or collaterals in approximately alternate generations.

Hogben's[11] formula for the detection of single recessive gene substitutions in a pool of families of varying sizes ranging from 1 to "c" is as follows:

$$\sum_{1}^{c} r_s = \sum_{1}^{c} \frac{p.s.n_s}{1-q^s}$$

where s = the number of members of a fraternity or sibship; n_s = number of observed fraternities with at least one recessive member; r_s = the expectation of recessive offspring in n_s s-membered fraternities of two heterozygous parents with at least one recessive offspring; p = number of recessives; q = expectation of normal individuals; q^s = the probability that all children will be normal when there are s members in a fraternity; c = maximum size of family.

For the matings $H \times H^1$ (where $p = \frac{1}{4}$ and $q = \frac{3}{4}$) within the limits of our pedigrees, however, we observed the number of affected to be 91, whereas the number predictable by factorial analysis was 111·6 (*vide* Table III).

TABLE III.

According to Hogben, expectation (r_s) of recessive offspring ns, s-membered fraternity of two heterozygous patients with at least one recessive offspring is: $r_s = \frac{sp}{1-q^s}$.
when p = expectation of normal offspring
and q = expectation of recessive offspring.

Known Size of Fraternity. (s.)	n_s.	Diabetic Members.		$n_s\sigma_s^2$.
		Observed.	Expected.	
1	3	3	3·0	—
2	10	12	11·42	1·22450
3	11	12	14·27	2·89267
4	7	7	10·23	2·94035
5	9	12	14·75	5·32602
6	5	8	9·12	3·87975
7	6	12	12·11	5·82144
8	4	9	8·89	4·68960
9	2	6	4·86	2·76040
10	2	3	5·29	3·18340
11	4	5	11·48	7·22120
12	2	2	6·196	4·03920
	65	91	111·61	43·97853

The standard deviation of the expected number 111·61 is:
$\pm\sqrt{43·978} = 7$, approximately.
σ_s^2 = the variance of $\frac{ps}{1-q^s}$.

For other types of matings, for example, $R \times H$ or $D \times H$ (where $p = \frac{1}{2} = q$), our figures were much further astray. Whether the plotting of nearly 200 family trees of the "non-hereditary" cases in our diabetic population would be worth while from this particular point of view is, however, doubtful, as analysis of this kind, according to Hogben,[11] is only applicable to gene substitutions not affected by differences of environment such as commonly occur within the framework of the family unit. Apparently it would also be difficult to detect

further increases in the number of genes involved, as the expectancy tables alter quite slowly as the number of genes increases. We intend, however, in a subsequent communication, to arrive at some figure for the general incidence of diabetes in the Sydney population, to collect pedigrees from all diabetics, whether they have a history of diabetes or not, and thus be in a better position to apply genetic formulæ to our results.

Allan[9] states that if one parent is a diabetic recessive, 10·6% of the children should have diabetes if the general incidence is 1·4%, which is Joslin's figure. If we take all the matings of an unaffected parent with an affected parent throughout our pedigrees we find 632 children resulted; of these 66 children were affected, an incidence of 10·4%. This agrees closely with Allan's[9] figure. His own statistics show that in 143 cases a history was given of diabetes in one parent in 17 instances or 12%. If diabetes is recessive with an incidence of 1·4%, then 31% of the sibs of diabetics should ultimately have it. According to our figures, 81 of our patients had 412 sibs, of which 51 were diabetics, that is, 12·3%. The disagreement with the theoretical value may be only apparent, since we may surmise that the remaining 19% constitute the potentially affected *plus* the undetected diabetic sibs.

Transmission as a Double Dominant.

The possibility of transmission of two independent dominant genes on separate chromosomes was considered, since this mode of inheritance may closely resemble that of a single recessive gene substitution. Our data were insufficient to apply Hogben's[11] formula for this particular discrimination, but such a form of propagation results in a high proportion of affected offspring in the mating of one affected and one normal parent, to such an extent that nearly every such union produces one or more affected individuals.

Clinical Recognition of Hereditary Diabetes.

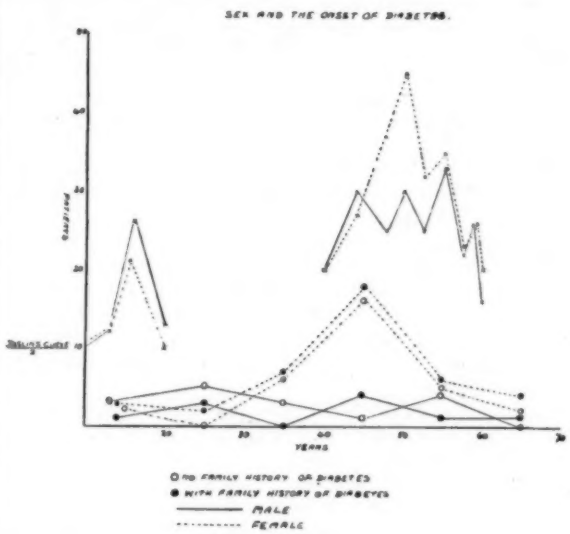
With regard to the question as to whether an example of hereditary diabetes is capable of clinical recognition, we have attempted to investigate the age of onset, severity, duration and differential fertility of cases with and without a history of diabetes among blood relatives.

(*a*) *Age of Onset.*—No differences were observed in ages of onset of the disease between two groups in patients of either sex (*vide* chart).

(*b*) *Duration.*—The duration of the disease showed no constant relationship with the age of onset, and the average duration from the age of onset of the disease to death in a group of 36 elderly patients with a positive history of diabetes was nine years. The duration of life in a corresponding group of 36 in-patients denying any evidence of transmission of the disease through their families averaged four and a half years.

(*c*) *Severity.*—The average number of units of insulin required per individual in a series of 85 consecutive diabetics with a history of *diabetes mellitus* was 16·5 units. The average number of units of insulin required per individual in a series of 85 consecutive diabetics of apparently sporadic type was 23·4 units. As far as such a generalization can go, it supports Joslin's[1] dictum that the presence of a history of diabetes is of favourable prognostic import.

(*d*) *Fertility.*—Fifty consecutive patients with a history of diabetes produced 185 children. Fifty consecutive patients with no history of diabetes produced 176 children, therefore there is no significant variation in differential fertility.



(*e*) *Sex.*—The increased incidence of diabetes according to Joslin[1] is mainly in the female sex, as found by the comparison of the death rates and sex distribution in Massachusetts, where diabetes had increased among males by 20% and among females by 117% in a period of 25 years. Joslin[1] considers that the general "midlle age spread" about the menopause is mainly responsible for this enormous difference. With regard to sex distribution of the disease in the population under consideration attending the clinic, there are 81 males and 169 females. When we divide our diabetic population into two parts, those who give a history of diabetes in their relatives and those who do not, we find as follows: (*a*) Of those admitting a history of the disease 24 were males and 61 were females, a ratio of 1:3. (*b*) Of those without a history of the disease 63 were males and 102 were females, that is, 1:1·5. (*c*) That the number of male patients affected in the combined pedigrees studied was 67 and the number of females 178, that is, 1:3. There is therefore an insufficient disparity in the sex distribution to suggest any sex linkage. No examples of assortative or closely consanguineous matings were discovered, though a close watch was kept for such unions.

(*f*) *Physical Type.*—No features reminiscent of pituitary, thyreoid or other form of glandular dystrophy were recognizable in the patients with a positive history any more than in those without such a history.

Association with Other Physical Features or Disease.

1. No association was observed through the pedigrees, either alternating or concomitant, between asthma and *diabetes mellitus*, but the usual story was that with the onset of diabetes the asthma seemed to disappear (Figure I).

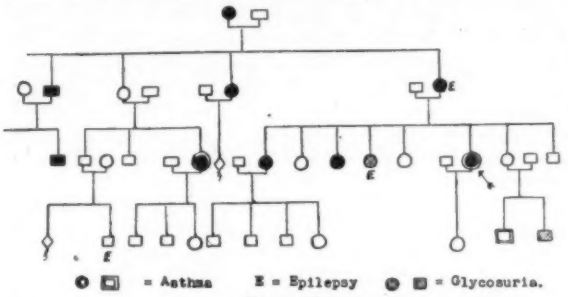


FIGURE I.

Pedigree showing the coincident appearance of asthma and diabetes. No constant relationship was noted between these two conditions, nor did the asthma follow any recognized method of transmission in this or similar pedigrees.

2. No association was noted between diabetes and a frequent occurrence of known thyreoid dyscrasia or pituitary disturbance. The majority of the patients stated, however, that they were stout before the onset of their disease and so were their siblings.

3. In each case in which inquiry was made into the colour of the hair and eyes, most of the patients and their siblings were of fair complexion. No linkage of the genes of complexion and diabetes was recognizable.

4. While some families showed an irregular occurrence of cancer, the total incidence was no higher than in the control series (Figure II).

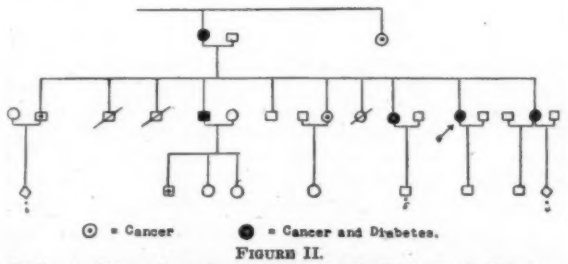


FIGURE II.

Pedigree illustrating simultaneous family history of *diabetes mellitus* and cancer.

5. Holst[12] holds that there is a frequent association of *diabetes mellitus* with benign glycosuria, either of renal or alimentary type, and that *diabetes mellitus* occurs only if a specific factor for diabetes is inherited, other factors causing merely glycosuria of an innocent character. A few of our pedigrees are suggestive of this association (Figure III).

Dounévitch[13] in 1916 found hyperglycæmia, recognized as the prediabetic state, in from 17·5% to 52·0% of the descendants and collaterals of diabetics. Sherrill[14] tested 40 relatives of 23 diabetics by the glucose tolerance test and found 21 of these to be diabetic. We were most anxious to investigate this astounding figure, but failed utterly to persuade any sibs or collaterals to submit to the test.

Discussion.

With regard to the statistical study of human inheritance, Hogben[11] states on the one hand that

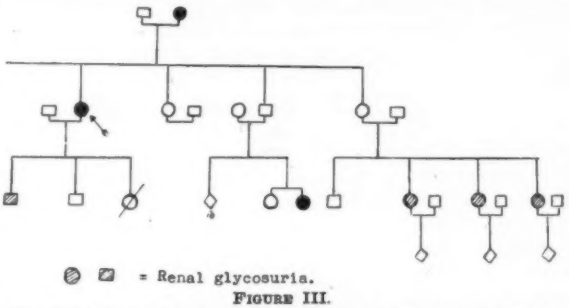


FIGURE III.

Illustrating collateral appearance of benign glycosuria in pedigree of *diabetes mellitus* (see also Figure I).

the experimental difficulties of the subject matter necessitate recourse to mathematical refinements which can be dispensed with in animal breeding, and, on the other hand, that there is the danger of concealing behind an impressive façade of flawless algebra assumptions which have no factual basis. The techniques of correlation and other tables of variability can be applied only to individuals of the one social level, and as far as diabetes is concerned no clear balance sheet of heredity and environment is yet possible.

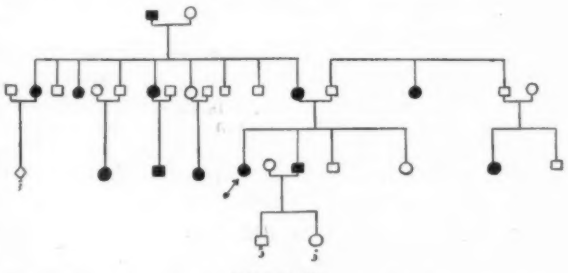


FIGURE IV.

Isolated pedigrees with heavy seeding of diabetics suggesting dominant form of transmission (see also Figure I).

No investigator has yet been able to show, with mathematical precision, that diabetes is transmitted as a true Mendelian recessive. A large series of patients can, to some degree, reduce the difference in the incidence due to varying post-natal and environmental factors determining the onset and severity of diabetes. The established disease is the biological sum of a number of complementary influences of which hereditary predisposition is

only one factor. It is obvious from the first that great difficulty must be encountered in severing this "interdependence of nature and nurture", to borrow Hogben's[11] expression. The patients we have classed here as being of an "hereditary" nature probably represent only that wing of the diabetic fraternity in which gene differences constitute the greatest factor in producing the disease. From the geneticist's angle all previous reports, including that of Pincus and White[5] and also our own present report, are inadequate, in that bias towards those patients freely admitting a diabetic taint in their families has occurred. Expectancy tables based on formulæ such as Hogben's,[11] Haldane's[15] and Jennings's must necessarily differ from figures collected from pedigrees showing transmission.

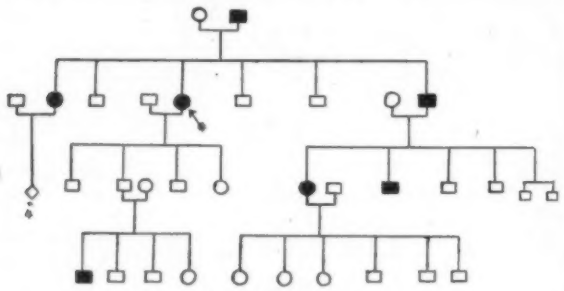


FIGURE V.
Isolated pedigree with heavy seeding of diabetics suggesting dominant form of transmission (see also Figure I).

It would be really surprising that, even when dealing with established hereditary diabetes, any such numerical correspondence should be manifest. So many factors can play a part in at least the initial determination of the disease which must affect both hereditary and sporadic examples alike. Diabetes must always differ in this way from diseases such as amaurotic family idiocy, Leber's atrophy *et cetera*, which fulfil so much better the Mendelian requirements.

This leads us to the question as to whether other activating factors have determined the appearance of the malady. We have, therefore, inquired directly from our patients with an hereditary history, for the history of an infection, excessive mental strain, childbirth or any form of endocrine crisis. The answers were compared with those from other diabetics not knowing of any other diabetics among their relatives, and it was found that the incidence of these possibly predisposing disturbances was no greater in one group than in the other. Such an inquiry is very difficult to conduct, as almost every patient can remember some such possible incident in answer to a leading question. One of the best recognized aggravating factors in the production of diabetes is the habit of over-eating. Practically all patients answered this query in the affirmative and described their whole family as "good eaters". Labbé[16] considers that this environmental factor is the real background to familial diabetes; the young children of diabetic or potentially diabetic parents are given an "*éducation morbide*" at the heavily laden parental table. He suggests that the transmitted factor may be a difficulty with glycogen storage only revealed after a period of excessive carbohydrate intake, a point difficult to prove.

It is unlikely that the influence of heredity in the later decades would still exert a stronger effect than the exciting factors derived from environment, gluttony, infections *et cetera*. It would seem more reasonable to suppose that the influence of heredity would be such as to cause a breakdown of carbohydrate balance earlier than at the age of the highest incidence of diabetes which, according to Joslin,[1] is in the sixth and seventh decades. As Hogben[11] remarks: "Our genes cannot make bricks without straw". If discussions about genetic differences are to have any value, the type of environment determining the onset of the disorder must also be stipulated, especially in metabolic derangements.

Prophylaxis in presumably non-sex linked recessive conditions such as diabetes depends on the avoidance of known consanguineous matings. Selection eliminates recessive conditions very slowly. Since the introduction of insulin the number of diabetic parents capable of childbirth has increased considerably, and it is possible that there will be, in the future, a thicker sowing of the gene for diabetes among the general population. A study of the frequency of consanguineous matings among diabetic stock should be the next endeavour of the geneticist in the diabetic field. The only precaution it is possible to advise for diabetics who wish to marry is a careful examination of their own pedigrees. If this shows a high incidence of the disease there is a definite danger that a few of the grandchildren, at least, of the mating will display signs of the disease, the theoretical figure, according to Allan, being 10·6% of the children.

Conclusions.

Finally we shall attempt to answer the questions asked at the beginning.

1. The proportion of members of a general diabetic population of 250 whose pedigrees we have collected because they have a history of other diabetics in their blood relatives was 34%. This figure for Sydney is higher than most of those given for other centres and suggests that the hereditary factor, as far as this evidence goes, plays an important part in the diabetes seen at this clinic.

2. The patients were all of the poorer classes, but not necessarily slum dwellers. The character and quantity of their diet did not alter very much from case to case before treatment. There was no evidence of consanguineous matings among their parents. We have been unable to estimate environmental factors by comparing the incidence of diabetes in the poorer and in the more well-to-do sections of the community. We find that the familial arrangement of affected individuals in our pedigrees approximates somewhat to that governing the appearance of recessive conditions. The gene

for mild diabetes might be present in a recessive form in diabetic families, but it shows up as true diabetes only when aggravated by some factor such as over-eating, obesity, infection, shock, worry *et cetera*. We prefer at present to make no deductions from agreement or otherwise with mathematical criteria for Mendelian transmission. Predictions of recessive offspring, using Joslin's[1] figure of 1·4% for the general incidence of diabetes, corresponds closely with our figures for matings of the $R \times H$ type. The expectation of affected offspring from matings of the $H \times H$ type, according to Hogben's[11] formula, agrees fairly well with the observed number. Our figures, however, are biased by the fact that we are dealing with a group of families selected because they show a high incidence of diabetes.

3. The incidence of a history of diabetes in the parents, sibs and children in a control series of non-diabetic individuals from the same social environment was 10·8%.

4. The gene or genes for diabetes do not, in our experience, display any linkage with those of colour, sex, or other diseases *et cetera*.

5. We can discover no correlation between the clinical type, severity or biochemcial character of diabetes and an inherited predisposition to the disease, except that on the whole "inherited" diabetes is of a slightly milder character than the sporadic disease. This does not exclude the possibility that different varieties of diabetes, each having a distinct pathological basis, may exist. It can only be inferred that at present genetic analysis gives no clue to the differentiation of such separate varieties. The available evidence suggests that whether we are dealing with a single disease or with several diseases having a superficial resemblance and classed as diabetes, the mode of transmission appears to be similar throughout the whole series.

6. When the two groups of patients—those with and those without affected blood relatives—were compared, fertility was found not to differ in the two groups, nor was any difference noted in the proportion of the sexes affected. Direct transmission was more frequent through the female in 19 instances, as compared with 14 directly transmitted by the male, whereas when the diabetes was transmitted by a carrier the female carriers numbered fourteen and the male carriers seven.

We propose later to undertake the investigation of blood groups in diabetic families, to determine whether or not any such linkage of genes occurs, and also to discover whether any association exists between the inheritance of diabetes and vascular hypertension.

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SINUSITIS IN CHILDREN.[1]

By CECIL CANTOR, M.D., B.S. (Melbourne), F.R.C.S. (Edinburgh), D.L.O. (London), F.R.A.C.S. (L.O.),
Melbourne.

THE purpose of this paper is to stress the frequency of sinus infection in children, a fact not at all realized by the majority of practitioners. The literature on the subject is sparse, a few casual references being made in American, British and local medical journals.

Frequency.

In examination of 100 consecutive new cases seen by me in the ear, nose and throat clinic at the Children's Hospital, Melbourne, 67% of patients were diagnosed as having sinus infection. In every case the diagnosis was confirmed by the usual methods, to be mentioned later.

Once it is realized that infants and children do have sinusitis, a greater number of cases will be diagnosed and treated; and more interest wi'l be taken in the condition, for when sinuses are present, sinusitis is always possible.

The 100 cases were made up as follows:

1. Sinusitis alone, 44%.

2. Sinusitis associated with some other condition, 23%. The associated conditions present were: (i) pathological enlargement of tonsils and adenoids, 13; (ii)) suppurative *otitis media*, 4; (iii) bronchiectasis, 2; (iv) asthma, 2; (v) atrophic rhinitis, 1; (vi) chronic bronchitis, 1. In regard to this, I am quite certain that a far greater number had chronic bronchitis, and a more careful scrutiny of their medical histories would reveal it.

3. The remaining 33% consisted of varying oto-rhino-laryngological cases, 20 of them being abnormal tonsils and adenoids.

Anatomy.

It is important to note briefly the following facts, regarding which the majority of anatomists agree.

[1] Read at a meeting of the Melbourne Pædiatric Society on September 12, 1934.

The maxillary sinus is present at birth as an outgrowth from the middle meatus. In the first year of life it is confined to a relatively small area lateral to the middle meatus. The cavity enlarges considerably between the final eruption of the temporary teeth at the end of the second year and the appearance of the permanent teeth in the seventh year.

The ethmoidal labyrinth is in the majority of cases completely pneumatized at birth, the air cells arising as extensions of the nasal mucosa into the lateral mass of the ethmoid bone. Subsequently the cells increase in size by expansion as the ethmoidal area grows.

The frontal sinus originates from a group of cells comprising the anterior ethmoidal area. It is rarely demonstrable before the end of the first year of post-natal life. The pneumatizing sinus gradually extends between the tables of the frontal bone, beginning its ascent during the second year. It is 3·8 millimetres above the level of the nasion at the third year and advances at an average rate of approximately 1·5 millimetres per year until the fifteenth year. Considerable variation exists and a well formed sinus has been opened for suppuration between the third and fourth year.

The sphenoidal sinus develops from the postero-superior portion of the *recessus spheno-ethmoidalis*. In children less than one year of age the diameters of the average sinus are 2·8 millimetres vertically, 2·0 millimetres laterally, and 1·5 millimetres antero-posteriorly. Pneumatization goes on, the rate of resorption of the body of the sphenoid being such that by the eighth or tenth year the postero-superior portion of the sinus lies beneath the anterior portion of the *sella turcica*, and by the fifteenth year is usually separated from the hypophysis by a very thin plate of compact bone. By the fourteenth year pneumatization may extend in many instances well into the pterygoid process.

The History.

In the majority of cases the symptoms vary little and the diagnosis presents no difficulty when the frequency of the condition is realized.

The children with constantly running noses and those who "always have colds" are nearly all suffering from sinusitis. These are the most frequently mentioned symptoms. Dependent on these is, of course, the next most common complaint, that the child is not able to breathe through its nose properly or that it is more often than not blocked up.

Far too often the mention of nasal obstruction, mouth breathing and nasal discharge associated with a pair of tonsils, perhaps slightly enlarged, has caused the child to have its tonsils and adenoids removed. Frequently then it is found that there is not much adenoid present, and after this there is very little, if any, improvement. Hypertrophied adenoid will, of course, cause these symptoms, and, although very common, is less frequent than usually believed. One never sees the nasal discharge of adenoids so profuse as that caused by sinusitis. The former causes rather "a sticky nose" with perhaps a small amount of mucus or muco-pus on the floor of the nose. Post-nasal discharge is a common complaint, due, of course, to the discharge passing back into the naso-pharynx.

Occasionally a chronic cough is the factor which leads parents to seek advice. This is caused by laryngeal or pharyngeal irritation of the muco-pus or by a complicating chest condition. Often the children are listless, have pasty complexions and are underweight.

Clinical Examination.

Examination gives fairly constant findings. Anterior rhinoscopy shows the nose to contain a varying amount of discharge on one or both sides, depending on the extent and severity of the condition.

It is usually muco-purulent, collecting on the floor of the nose between the inferior turbinals and the septum and under the inferior turbinals. It may extend higher into the nasal cavity, in and around the middle meatus, and between the middle turbinal and the septum.

It may consist of a more purulent collection or streaks of pus may be seen along the outer nasal wall, in the middle meatus, over the inferior turbinal or between this and the septum.

The inferior turbinals are swollen and œdematous in varying degree, the mucosa of the middle meatus is thickened and reddened, and rarely one may see polypi in this area.

Quite commonly one sees crusting in the nose, usually small and without fœtor. This is due to the evaporation and absorption of the watery content of the stagnant pool of nasal discharge. Frequently also there is excoriation of the nares, with fissures, cracks and crusting caused by the irritative fluid acting on a delicate muco-epithelial border.

Rarely the nose may be atrophic, and still more rarely true ozena may exist. Oral examination frequently reveals the tonsils to be normal in size or but slightly enlarged. Occasionally they are obviously pathological, and while this latter condition is quite common, by far the greater number of cases show normal tonsils. Often one sees muco-pus or pus on the posterior pharyngeal wall below the soft palate.

Posterior rhinoscopy may show discharge in the vault, over the posterior edge of the vomer, occasionally around the posterior ends of the middle or inferior turbinals and frequently over the Eustachion cushions. The adenoid pad may or may not be enlarged. In the majority of cases in this group it was not (87%), and there was no association between the two pathological processes. Opinions differ as to the frequency of association of these two conditions, and one wondered during frequent post-nasal rhinoscopy why the association was not more common. One expected hypertrophy of adenoid either as cause or from the irritative and infected muco-pus and pus, but the fact remains that only in the minority of cases did the conditions coexist.

Aids to Diagnosis.

As in routine sinus investigations, after history-taking and examination, confirmation is made by radiological diagnosis, transillumination, proof puncture and antrum wash-out. In every case radiography showed mucosal thickening to be present in the maxillary sinuses, either one or both. Occasionally the cavity is almost obliterated by the thickened mucous membrane and occasionally the thickening is localized to the floor or one or other wall.

Along with this ethmoidal involvement occurs. The clear outline of these cells is hazy and obscured by the thickened mucosa. Often no outline at all can be seen of the air cells. Occasionally the ethmoids are not involved and the antra only are affected. In no case did frontal or sphenoidal involvement occur, and it has been stated that involvement of these air cells is of sufficient rarity as to be practically negligible.

It is important that a diagnosis of sinus infection should not be made on X ray evidence alone. Many patients, more especially adults, have been subjected to operation on X ray diagnoses and at operation the antral mucosa showed no evidence of disease. Most of these cases of transient mucosal swelling are allergic in origin, and mention is made in passing in order to draw attention to the fallacy of X ray diagnosis alone.

Transillumination as an aid to diagnosis was not used in this series of cases, as it was not available. In a similar series of cases investigated at the Babies' Hospital, New York, confirmatory evidence was obtained in all cases.[1] In another series the author stated that transillumination will in many cases indicate sinusitis, but negative findings do not exclude sinus disease and further investigation should be made in suspected cases.[2]

Proof puncture and antrum wash-out as a means of diagnosis is proof positive, and it is at the same time a method of treatment. It is the only certain method of diagnosis; and from it one obtains information regarding the contents of the cavity, the degree of inflammation and the presence or otherwise of mucosal hypertrophy. After some experience of the condition the diagnosis is usually obvious before this is done, although occasionally intranasal examination shows very little and proof puncture gives surprising results.

Adenoids and Sinus Infection.

It is interesting at this stage to consider the part played by adenoids in the production of sinus infection. Are they cause or effect? In a recent publication Graham Brown[3] states that there is an invariable association of sinusitis and diseased tonsils and adenoids, that removal of the latter in favourable cases will effect a cure of the former, and that many cases of sinusitis in children could be prevented by earlier treatment of tonsils and adenoids. While these observations are to a certain extent correct, they are not entirely correct. Uhr and Pugh,[1] in a consideration of the same problem, quote a series of 18 cases in which symptoms were practically the same as those given above. In every case tonsillectomy and adenoidectomy were performed. In 13 cases there was no improvement. In two cases the colds and discharge increased in severity and frequency, and in three cases there was a temporary improvement with return of all symptoms.

In my own series of cases definite association of sinusitis with enlarged tonsils and adenoids was present in 13 cases. There is no doubt that many children suffering from hypertrophied tonsils and adenoids have a moderate or severe degree of sinusitis. A large post-nasal pad will often completely fill the post-nasal space, preventing drainage from the nose, thus predisposing to and actually causing sinusitis. This would explain the exacerbation of symptoms seen occasionally after tonsillectomy and adenoidectomy.

Drainage from the nose occurs, an increased amount of muco-purulent secretion passes into the pharynx, larynx, trachea and stomach, causing more nasal discharge, cough, digestive upset and a lowering of the child's resistance. Obviously the success of this operation alone in curing sinusitis depends entirely on the degree of sinus infection associated with the enlarged tonsils and adenoids. The more pronounced the involvement of the sinus mucosa, the less likely is there to be any improvement, without attention being turned to this area. In the great majority of cases there is quite a severe degree of infection, as evidenced by the purulent content of the wash-out, the latter varying from muco-purulent to frankly purulent. Hence the continuance of symptoms after tonsillectomy and adenoidectomy. There is also no doubt that a larger number of cases are primarily of sinus origin with either secondary or coincident infection of adenoids and tonsils. The tonsils, except when grossly enlarged and causing naso-pharyngeal obstruction, probably play no part at all in producing sinus disease in children. They are evidence, though, of upper respiratory lymphoid tissue infection. A fallacy, far too prevalent, is the belief that removal of tonsils will prevent colds.

Sinus infection commences usually as a naso-pharyngitis, coincident with a common cold, or may follow any condition which produces congestion, œdema or infection of the upper respiratory mucosa, for example, measles, scarlet fever, pertussis, asthma and the various allergies *et cetera*.

One cannot regard the nose and pharynx as separate from the sinuses. They are component parts of a continuous whole, and probably in every case of naso-pharyngeal infection sinus involvement occurs. In both acute and chronic conditions rhinitis is usually also sinusitis. The use of the term rhino-sinusitis, adopted by some American authors, is more comprehensive.

The persistence of the sinusitis depends upon the severity of the infection, and on this the activity of the cilia and patency of the ostia.

Regarding adenoids, therefore, one may say: (i) that they may predispose to and cause sinus infection; (ii) that they are often coincident with or dependent on sinus infection; (iii) that frequently they have no association with sinus infection at all.

Another probable ætiological factor which is worth investigation is the relation of allergy to chronic sinus infection in children. Many children are sensitive to one or more of the numerous foreign proteins, and often their reaction is one of swelling and œdema of the upper respiratory mucosa. The ostia becomes blocked, retention occurs, with deficient drainage, and so the soil is prepared for an inflammatory process. In children with sinusitis one sees occasionally enormously swollen posterior ends blocking the choanæ. It is probable that the swelling in these cases was originally allergic. The mention of allergy naturally brings in another vexed and undecided question of cause and effect. Are these patients primarily allergic and secondarily infected, or does the patient become sensitized to his own invading organism? There is a tendency amongst rhinologists and allergists to accept the former theory, but the question is still undecided and it is the subject of frequent discussion.

Bacteriology.

It is doubtful whether a study of the bacteriology of the sinuses materially helps either in diagnosis or treatment. Organisms are present both in health and disease, and the sinuses are probably never sterile. In inflammatory states there is, of course, a change in the number and virulence. Ashley and Frick[4] made bacteriological examinations of antrum washings from 83 symptomless children; 54% presented positive findings. The bacteria most frequently found were the staphylococci, *Micrococcus catarrhalis* and streptococci (*viridans* and *hæmolyticus*). Also found, but less frequently, were *Bacillus influenzæ, Diplococcus pneumoniæ, Bacillus hoffmani,* and a small percentage of unidentified vacteria.

In a small series of 12 cases in which muco-pus from wash-outs was cultured, we found the following: (i) pneumococci alone, four times; (ii) pneumococci associated with Gram-negative bacilli, five times; (iii) pneumococci with Gram-positive bacilli, twice; (iv) streptococci associated with Gram-positive cocci and Gram-negative cocco-bacilli, once; (v) in one case *Micrococcus catarrhalis* was present with *Diplococcus pneumoniæ*.

It is interesting to note that in 11 out of 12 cases pneumococci were present, a far greater percentage than in any other series I have noted.

Complications.

It is not infrequent in nasal sinus infection to have the attention drawn to some contiguous or remote area. Often the predominating symptoms are those of a complication, and it is only the knowledge that these are many and frequent, together with a careful examination of the nose and naso-pharynx, that will reveal the cause of some other pathological state. For example, *otitis media* is frequent and the causation of a suppurative *otitis media* resistant to local treatment is often to be found by a more careful examination and observation of a homolateral nasal discharge and a tubo-tympanic infection. Treatment of the sinus will resolve the otitis. Recurring sore throat is not uncommon, the lymphoid tissue being infected by the passage over it of muco-pus from the naso-pharynx. Tonsillectomy alone will not cure the condition. Often after this the sore throat recurs, this time due to inflammation of the lateral pharyngeal bands.

Chronic cough is common, due to laryngitis, bronchitis or peribronchial lymphadenitis, the primary cause being infection from the affected sinuses. The occurrence of bronchiectasis secondary to sinus infection is a well known fact.

Cervical adenitis is frequently seen, and also anorexia, malnutrition and anæmia. Occasionally orbital cellulitis and abscess follow ethmoidal infection.

Infectivity.

Another fact in sinus infection in children, not at all sufficiently well realized, is the high degree of infectivity of the condition. One can recall very many cases in which two and three children of the same family have undergone treatment, in which further inquiry elicited the fact that the father or mother or some person in close association with the children "suffers from catarrh" or "always has a cold". The degree of infectivity is apparent also when, after examining the nasal passages of many of these children without the necessary precaution of wearing a mask, one develops fairly quickly a nasal infection. One finds this can be avoided by using a mask when making frequent nasal and oral examinations. The frequency of sinusitis among rhinologists is common knowledge. In discussing recurrent colds, Yates[5] draws attention to this infectivity and also to the part played by dental sepsis in causing nasal infection or reinfection of those who are recovering from a severe cold. He states:

> This infection may be air-borne and extrinsic and result from close association with a person who has a high degree of dental sepsis or a chronic state of nasal inflammation. It may also be extrinsic from finger-borne infection, through children putting dirty fingers in their noses, or it may be intrinsic from a source of infection within the nose, and generally in a nasal sinus.

The conditions under which many patients live also increases the ease with which infection is transmitted, and make more difficult successful treatment of a sinus infection.

Treatment.

Treatment resolves itself into: (i) local treatment of the nose and affected sinuses, included here being the preservation and stimulation of normal ciliary action of nasal and sinus mucous membrane; (ii)

general treatment whereby the nutritional state of the body is raised to a maximum so that its defences are at their highest.

Local Treatment.

The two factors of paramount importance in the treatment and resolution of a sinus infection are ciliary action and patency of the ostium. Every sinus is emptied by the action of its cilia, and a collection of mucus or pus in a sinus indicates that the cilia have failed in their efforts to remove this. This may be due to a paralysis or desquamation of the cilia, or it may be due to an œdema of the mucosa, especially around the ostium, so that drainage cannot occur into the nose. Removal of the products of inflammation allows the mucosa to rest and to utilize such power of spontaneous recovery of its function as it possesses. Therefore the best method of treatment of a case of sinusitis is a washing out of the cavity. The discharge is removed, the mucous membrane regains its function, and more often than not this is sufficient to bring the inflammation to an end. In the milder cases of sinusitis, before antrum puncture is performed, a week or so trial of intranasal hygiene is adopted, often with considerable improvement. Usually, though, if any degree of severity is present, antrum puncture and lavage have to be done.

The value of local use of drugs, oils, inhalations and lotions is in dispute; and it is maintained by some that intranasal instillation of drops is of no use, as they do not reach the affected antrum. It will, of course, depend on the patency of the ostium, and if this is present in any degree, often a definite improvement results. The nose must first be cleansed with a mild alkaline douche to remove mucus and muco-pus from the floor and from the meati. This is followed by the instillation of drops, such as argyrol, 20%, or any similar mild colloidal silver preparation, "Nebuzol" (in which the beneficial action of ephedrine is obtained in the shrinkage of œdematous mucosa) or any similar preparation. Strong antiseptics must not be used, and all nasal lotions should be alkaline and isotonic with the blood plasma. This is best done by using borax, bicarbonate of soda and common salt in the strength of 0·3 gramme (five grains) of each to 30 millilitres (one ounce). It may be made more pleasant by adding glycerine and some mild antiseptic, such as menthol or eucalyptol. The lotion is best used tepid, about 38·9° to 41·1° C. (102° to 106° F.). Sniffing is the method most generally employed, as it is quick, convenient and simple, and the lotion follows natural air currents. Gentle use of a Higginson syringe is a good method, or a one-ounce pear-shaped rubber syringe may be satisfactory. No force or pressure must be used, the possibility of middle ear infection being thus obviated. This is followed by the antiseptic drops, five or six drops being put into the affected side by a pipette, the head being thrown back and to the affected side. That the drops do reach the antrum in some cases is proven by seeing the deeply stained brown mucus and muco-pus in some of those antra that are subsequently washed out after argyrol has been used. This simple treatment is often sufficient to cause a definite improvement, though in the majority of cases, antrum puncture has to be resorted to.

For this procedure local anæsthetic is used, except in very young children, that is, those under four or five years of age, and in older children who are unmanageable. Fine cotton wool carriers are used, a thin pledget being firmly wound round the end. The wool is dipped in a 10% solution of cocaine, to which adrenaline has been added in the proportion of 0·24 millilitre (four minims) to 4·0 millilitres (one fluid drachm). Considerable patience and time are often necessary to obtain the confidence of the child patient, but it is time well spent, and usually there is no difficulty in performing the wash-out on subsequent occasions if the child has not been hurt or alarmed. A small-bladed Thudichum nasal speculum is used, and the spring is carefully controlled so that unnecessary pain is not caused by undue stretching of the nares. The carrier is placed under the inferior turbinal and lies against the antero-nasal wall. A period of ten to fifteen minutes is sufficient time to allow for anæsthesia. For puncture a sharp Lichwitz trocar and cannula are used. The instrument is directed high up, under the inferior turbinal, about the junction of its middle and posterior thirds. The head is steadied and the trocar is pushed through the thin antero-nasal wall in a line directed toward the outer canthus of the orbit. Very little force is needed, as the bone here is thin. If much pressure is necessary, the trocar is not in its correct place, being too far forward or too far posteriorly, where the bone is thicker. The breaking of the wall is heard, and the point of the trocar lies free in the cavity of the antrum. If both sides are to be punctured, it is well to puncture the opposite side and leave the cannula *in situ* before proceeding to do the wash-out. For this, normal saline solution at body temperature or a little warmer is used. The child sits forward, holding a kidney dish to catch the fluid, the head and neck bent, mouth open, breathing gently in and out. A Higginson syringe is connected and a wash-out is performed. The result varies from a clear return to varying numbers of mucosal threads, to excess of clumped mucus and threads, to clumped muco-pus, to clumped or even free fluid pus. The return is best seen if a black dish is used. Depending on the degree of mucosal involvement around the ostium is the amount of force necessary to obtain a return. Frequently slight degrees of pressure are needed, indicating an œdema or hypertrophy of mucosa. Occasionally with a little pressure the return suddenly becomes free, probably due to the washing through of inspissated mucus or muco-pus in the ostium. Force should never be used. If one is unable to obtain any return without much pressure, it is better to pass a second trocar and puncture just below the first. The return is then via the latter cannula. At the end of the proceeding the residual fluid should be washed out

by gentle air pressure. During the following days the child continues with its nasal douching and antiseptic drops. When next seen, after a week or so, invariably there is a marked improvement. This will be conveyed to you by the mother, by the child and by examination of the nose. The child feels better, breathes more naturally, has much less discharge from the nose, and its condition is altogether improved.

Examination shows the nose to be much cleaner. If previouly purulent, the discharge now has a higher mucoid content. The œdema of the turbinals is less, crusting, if previously present, is gone, and the child is usually so benefited that the suggestion of another wash-out meets with acquiescence.

Occasionally it is not necessary to repeat this treatment, but often up to five or six wash-outs have to be given at intervals gauged by the nasal findings. Weekly intervals are usual. In the vast majority of cases this will bring about a resolution of the condition. The removal of the inflammatory products paralysing and impeding the action of the cilia and blocking the ostium is sufficient to enable them to resume their normal activities.

In some cases resolution is not obtained after a series of wash-outs, although there is improvement, and in these it is necessary to provide an artificial ostium and to give permanent drainage to the affected antrum by means of an intranasal antrostomy. In all but the most obstinate cases this will, after a month or so cause the condition to clear.

There are still a few cases, however, in which, despite repeated washes, operative drainage and all local and general treatment, the condition still remains. One sees these children occasionally; their noses are full of pus every time they are examined, and persistently and obstinately remain so. In these there is probably an involvement of some other factor, at present not understood. Suggestions have been made that it may be a question of the complex processes of immunity. Another theory involves the problem of vitamins. Perhaps these children are born with an inherent defect in their nasal and sinus mucosa comparable to those with inherent defect of kidney or bone tissue.

It will be noticed that all treatment is directed towards the maxillary antra and no mention is made of the other sinuses. The not infrequent involvement of the ethmoids is treated along the same lines, and subsidence of the antral infection usually brings about subsidence of the milder ethmoidal condition. Drainage occurs from the ostia of the anterior and middle ethmoids as the œdema of the mucosa of the middle meatus lessens. Very rarely gentle intranasal curettage of the ethmoidal labyrinth may be necessary, by breaking through the bulla cells. Turbinals should be preserved, and it is important to cause as little destruction as possible of the mucosa.

If complications develop, such as orbital cellulitis, more radical and prompt measures are, of course, necessary and external drainage must be performed. The nature of the treatment depends upon the condition present.

General Treatment.

As in any other condition in which a toxic focus has been insidiously lowering the resistance of the body and reducing its defensive mechanisms, so in sinus infection are general measures necessary to assist in returning the body to its normal state. The poor living conditions in which many of these patients live, undoubtedly retards their recovery, but to all of them an abundance of fresh air and sunlight is available and should be utilized to its utmost. A dry, sunny climate is most suitable, and many patients are benefited by a change of atmosphere. The infectious nature of the condition should be stressed and the importance of cleanliness, especially in regard to the disposal of infected handkerchiefs, and hand-washing should be taught to patients and parents. Contact between patients and those not infected should be avoided as much as possible. One mother brought in her two small boys and stated that their constant colds and running noses commenced shortly after a newcomer at school had been placed between them. The latter "always had a cold".

Many of these children are pale and anæmic and are definitely improved in their general health by a course of tonic treatment.

Summary.

Attention is drawn to the prevalence of sinus infection in children. The symptoms and signs vary little and are usually quite definite. It is desired to stress the simplicity of the examination necessary for establishing the diagnosis of paranasal sinusitis.

The relation between pathological enlargement of tonsils and adenoids and sinus infection is discussed.

Lines of treatment are indicated. It is the lack of knowledge of the benefit obtained from, and of the simplicity of, performing sinus irrigation, together with the dislike of hurting a child patient, that has restrained many practitioners from making the diagnosis in children suffering from continued catarrh, inexplicable retardation in physical development and unexplained pyrexias.

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VENEREAL DISEASE AND THE GENERAL PRACTITIONER.

ONE of the complaints most prevalent among general practitioners is that more and more of the work that should belong to them is being taken over by hospitals, government departments and other bodies. Those who know anything about general practice, whether they have ever been engaged in it or not, will side with the general practitioner in his complaint. Naturally those who control public hospitals make every effort to promote the efficiency of their several departments. Public health authorities also must take cognizance of every disease that threatens the welfare of the community; did they not do so, they would be failing in their duty. Certain prophets of ill-omen have declared that the general practitioner will some day cease to exist. Such a development would be a dire calamity for the community and an enormous handicap both to the advance of medical knowledge and to the practice of the art of medicine. A week or two ago, for example, emphasis was laid in these pages on the importance of sociological wisdom in medical practice. On this count alone every effort should be made to preserve the status and protect the rights of the general practitioner, for he, of all others, can best study the environmental factors of disease. The treatment of venereal disease is one sphere in which the activities of the general practitioner have been restricted. Our attention has been drawn to this subject by a statement made by Colonel L. W. Harrison in an address delivered at the Imperial Social Hygiene Congress in 1933. Colonel Harrison stated that amongst the great obstacles to reform was the idea still prevalent in many areas that efficient treatment of venereal disease was within the competence of any practitioner would could put a needle into a vein and give an intramuscular injection and that the treatment of gonorrhœa was a mere matter of ordering a syringe and writing a few prescriptions.

The treatment of venereal disease, as every medical hygienist knows, does not consist merely in the treatment of the patient presenting himself or herself for examination on account of some pathological manifestation. It goes without saying that the treatment of the patient must be carefully planned, that it must be continued until a cure is effected, and that steps must be taken to prevent the patient from infecting others while he is under treatment. The treatment of venereal disease, however, lies largely in its prevention. The members of the community must be taught that venereal disease is no respecter of persons, that infection may come from what might be regarded as the least likely source. They must know how to recognize its manifestations. They must be warned of its infectivity and of the occasional difficulty of being certain that a cure has been effected. They should also in certain circumstances be told something in regard to prophylaxis. Though a certain amount of teaching of this kind has been given, much more obviously remains to be done. Men with syphilis do not come always for treatment before the primary stage of the disease has passed and before, with the advent of the secondary stage, cure has been

made more difficult. Women with syphilis, who maybe have been treated through pregnancy, do not always return to make certain that their infants are free from disease. Men infected by the gonococcus are sometimes married without taking every care to discover whether they are likely to infect their wives. Women with apparently innocent discharges seldom come for examination to discover whether they are likely to infect another person. The general practitioner is more fitted than any one else to bring to the members of the community a realization of the dangers that they face and of the responsibilities that they incur.

Since the general practitioner has such opportunities of dealing with the preventive side of venereal disease, he must fit himself to undertake the therapy of the several types that present themselves. Meticulous care is called for in the treatment of venereal disease. Not only must due weight be given to the results likely to follow the exhibition of the several medicaments, but the necessary laboratory tests must be understood so that they will be applied at the right time and that their results may be correctly interpreted. If the general practitioner is equipped with the knowledge and skill that are required, he will be in a position to do the best for his patient, and he will be the better able to withstand the inroads of others into what he rightly regards as his domain. That he may gain this equipment the more easily, we would suggest to the post-graduate committees in Australia that they consider the advisability of organizing special courses in the treatment of venereal diseases.

Current Comment.

NEPHROSIS OR NEPHRITIS.

MEDICAL nomenclature includes many terms with which all are familiar but whose exact meaning is somewhat nebulous. Such a one is the term nephrosis. As Gainsborough has said, distinctive names are useful only when they represent fundamentally distinct conditions; and while the term nephrosis may be a usefully short one to describe clinically what could also be called subacute hypotonic œdematous nephritis, it is doubtful whether it forms a satisfactory link between clinical and pathological methods of investigation. The history of the term, as outlined by J. Shaw Dunn, is interesting.[1] It was first proposed by Müller in 1906 for those morbid processes in the kidney which were certainly or very probably purely degenerative. He referred only to conditions which had formerly been included under "Bright's disease", and he recognized the great difficulty of distinguishing histologically between inflammation and degeneration. The term nephrosis, he allowed in a footnote, might come to be used, in place of nephritis or of Bright's disease, to include inflammatory as well as degenerative conditions. In 1913 Munk revived Müller's term nephrosis, but with a completely changed significance. He applied it exclusively to degenerative lesions in the kidneys as opposed to inflammatory nephritis, but included under it conditions so diverse as cloudy swelling, fatty degeneration, necrosis from chemical poisons, amyloid disease, glycogenic infiltration and lipoid infiltration. Vollard and Fahr in 1914 adopted the term to include purely degenerative renal lesions as distinct from nephritis, and identified the clinical syndrome of high albuminuria without hæmaturia, persistent œdema, and normal blood pressure as a stage of simple nephrosis. Munk (1916) applied the term lipoid nephrosis to this type of condition and developed the entirely new idea that this was a general metabolic disease involving the lipoid metabolism. "This provision of a new name, a supposedly characteristic morbid anatomy and a possible specific pathogenesis for hypotonic œdematous nephritis proved very attractive to clinicians, and the conception of chronic or lipoid nephrosis as a separate entity became widely accepted in Germany and the United States, where it received a further impetus from the work of Epstein." In 1917 Aschoff questioned the possibility of separating nephrosis from nephritis, pointing out that Fahr by now agreed that some cases which were clinically nephrosis turned out anatomically to be nephritis.

The clinical syndrome of pure œdematous nephrosis is relatively uncommon, and in some cases complete recovery occurs, so that the opportunities for observation of the renal changes are rare for any single worker, but a considerable number of records have now been published. In all these the general findings have been the same: the appearances of tubular degeneration predominate and the glomerular changes are slight or absent. Shaw Dunn questions whether they would be pronounced completely normal if subjected to meticulous examination by such authorities as Löhlein or Fahr. He proceeds to describe nine such cases, drawn from a total of about 5,000 autopsies. He includes all the cases in which, with a clinical history of lasting œdema and albuminuria and a diagnosis of subacute nephritis, the glomerular lesions in the kidneys were notably slight, while tubular changes were more or less pronounced. There follows a detailed consideration of the changes in the glomeruli, which

[1] *The Journal of Pathology and Bacteriology*, July, 1934.

have led him to believe that the essential lesion in subacute hypotonic œdematous nephritis is in the glomeruli, and consists of abnormal permanent patency of their capillaries, which may have resulted from previous inflammation. The partial stasis thus caused offers a possible explanation for the high albuminuria of nephritis, and it is suggested that the prominent tubular changes are due to reabsorption of materials abnormally present in the glomerular filtrate and are therefore secondary to the lesions in the tufts. In a previous communication Shaw Dunn raised some objections to the modern view that nephrotic œdema is due to factors outside the kidney and that the oliguria is a consequence and not the cause of retention of fluid in that form (see THE MEDICAL JOURNAL OF AUSTRALIA, August 11, 1934). He does not discuss the whole question in this paper, but remarks that there is still a *prima facie* case for the oliguria of nephrosis being renal in origin. His exposition of his theory of oliguria is extremely interesting, even if it is not entirely convincing. How, we may ask, can it be entirely convincing when it deals, however honestly and ingeniously, with a process of which we have still no precise knowledge. The article is nevertheless an excellent one, and it is impossible to do justice to it in a brief review such as this. It is placed first in that number of *The Journal of Pathology and Bacteriology* which was published in honour of Sir Robert Muir, F.R.S., on his seventieth birthday (July 5, 1934).

THROMBO-ANGIITIS OBLITERANS.

THE curious and serious arterial disease that is often called Buerger's disease was given the name of *thrombo-angiitis obliterans* by Buerger himself, and this title, though clumsy, is most aptly descriptive of the condition, summoning up the chief clinical features to the mind. These are the inflammatory nature of the vascular lesion, the occurrence of thrombosis in veins and arteries, and the occlusive phenomena resulting in gangrene of the extremities. But attention has perhaps centred too much on these peripheral changes, and there is little readily available information concerning visceral damage and other possibilities that affect prognosis.

S. H. Averbuck and S. Silbert, in one of a series of studies on this disease, have collected a great amount of material on the subject of the cause of death in patients suffering from Buerger's disease, and this is of considerable interest and value.[1] They have excluded all cases of peripheral vascular disease associated with diabetes, gout and syphilis, and those in which a known hypertension had preceded the obstructive phenomena. Forty-seven cases were collected in all, most of them personally observed by one or the other of the authors, and autopsy findings were available in nineteen of these. The causes of death are classified as follows: operative intervention, intercurrent disease and accidents, asthenia and cachexia, and extra-peripheral vascular accidents and sudden deaths. It is in the last that the most interesting material is to be found. It is surely significant that the first five cases on this list are recorded as "sudden death". There was no autopsy in these cases, but the ages of the patients should be noted: only one over fifty and one under thirty. No less than thirteen patients in this group died from cardiac causes; all of these were believed to have coronary disease, and in half of them the occurrence of a coronary occlusion was proved *post mortem*. Thrombosis in the cerebral or abdominal arteries accounted for the remainder.

All the patients studied in this communication had the lower extremities affected, and about half the number were also observed to have disease of the arteries of the upper limb also. Thirty-nine of the forty-seven had undergone at least one major amputation, but of course it must be remembered that, unsatisfactory as the treatment is, less patients are now being subjected to early amputation. Some of the deaths in the series were, however, thought to be due to the fact that operative intervention was practised too late, when the patients were worn out by pain and toxic absorption. As the authors remark, deaths in this category should be largely preventible. The intercurrent group does not shed much light on the problem, except to point out that the disease may be of comparatively long duration, an encouraging aspect of prognosis. As regards the visceral (and chiefly cardiac) group above referred to, the literature contains numbers of references to coronary accidents that have occurred in the course of *thrombo-angiitis obliterans*. But the available evidence does not suggest that the changes in the coronary vessels are those typical of Buerger's disease, although, as the authors remark, a percentage of nearly forty is probably considerably higher than might be expected to represent the deaths due to coronary occlusion in the age groups studied. Therefore, although it cannot be positively said that this strikingly high number of cardiac deaths is directly due to *thrombo-angiitis obliterans* of the arteries of the heart, there appears to be more than a casual relationship between the two conditions. Moreover, though the few deaths due to cerebral thrombosis might be easily explained, those following intra-abdominal vascular accidents must surely be significant. In some of the cases that came to autopsy definite thrombotic and recanalizing types of lesion were observed in the arteries of the viscera. There seems, then, reason to believe that coronary or other visceral thrombosis is not an uncommon cause of death in the sufferers from Buerger's disease and, bearing this in mind, quite apart from the cases of coronary accidents diagnosed in the living subjects of this disease, the prognosis must not be centred entirely around the extremities.

[1] *Archives of Internal Medicine*, September, 1934.

Abstracts from Current Medical Literature.

OPHTHALMOLOGY.

Recession of the Levator Muscle for Lagophthalmos in Exophthalmic Goitre.

I. GOLDSTEIN (*Archives of Ophthalmology*, March, 1934) employs the following technique in the recession of the levator for exophthalmos. An incision for the entire length of the everted lid is made through the conjunctiva at the upper border of the cartilage. The upper flap of the conjunctiva is freed upwards from the underlying levator for ten millimetres. An incision is now made one millimetre below the upper edge of the cartilage through the conjunctiva and cartilage to the fascia separating the levator from the orbicularis. The cut edge of the cartilage to which the levator is attached is grasped and dissected upwards from the fascia for ten millimetres. Three double-armed number five silk sutures are now passed through the isolated elevator, behind the strip of cartilage (which is later cut off) and brought out on the skin immediately below the brow and tied over pegs. The conjunctiva is closed by a running stitch.

Concomitant Squint.

O. WILKINSON (*Archives of Ophthalmology*, March, 1934) believes that if glasses do not cure squint in two or three months, they probably never will. Hence he advises operation for very young children. The resection operation is performed as follows: An incision one centimetre long is made two millimetres in front of the insertion of the muscle, which is exposed for one centimetre. A Prince forceps is placed on the muscle, which is cut one millimetre from the insertion. A double-armed silk suture is inserted from the bulbar side through the upper and lower fourths of the stump, care being taken to get a good scleral hold. The two threads are now passed through the muscle from its under side at a measured distance from the cut end and then out through the conjunctiva. The muscle is brought forward, with the Prince forceps still holding it, and the suture is tied, the advanced muscle being thus fixed to its stump with a mattress suture. The lateral sutures are now placed, one above and one below, through the conjunctiva, capsule, muscle and conjunctiva. The muscle is cut off back of the forceps and the lateral sutures are tied, the wound thus being closed. Approximately fifteen degrees of deviation will be obtained from ten millimetres of shortening. The other operation is recession. From 4·0 or 4·5 millimetres of recession fifteen degrees of correction are obtained. The author describes his recession technique with scleral sutures, which hardly lends itself to abstracting. He has recently devised a recession operation without scleral sutures which is safe and simple. The internal rectus tendon is exposed only enough to permit of a hook being placed under it. Two double-armed sutures are whipped into the upper and lower borders of the tendon directly over the hook. The muscle is cut one millimetre from the stump and held away from the sclera by threads, while the sclera is scarified with a curette four millimetres back. The pair of sutures are brought through the stump at its lower and upper edges and out through the conjunctiva near the cornea and tied over a four or five millimetre rod. The rod is withdrawn and the muscle recedes four to five millimetres from the stump.

Paradoxical Images in Vertical Rectus Palsies.

M. FIELDS (*American Journal of Ophthalmology*, March, 1934) illustrates in two cases of vertical rectus palsies the production of paradoxical images. A man of thirty-two years suffered a blow over the left eye. There was limitation of elevation of the left eye and he complained of diplopia. The nine-position diplopia chart was typical, with the left image above and the right below, except that in the lower right position the right image was above and the left below. This is explained by the extorsion of the antagonist of the paralysed muscle, namely, the inferior rectus. Extorsion means that the upper pole of the eye is tilted temporarily, from which it follows that the macula is depressed, and hence the false image is seen above. This cannot happen in oblique palsies, as the antagonist displaces the eye in the same direction as the original vertical displacement. A second case is reported.

Optic Neuro-Myelitis.

R. A. PERRITT (*Archives of Ophthalmology*, March, 1934) reports two cases of optic neuro-myelitis, which is a rare disease, only about fifty instances being reported. Clinically the disease is one of bilateral optic neuritis, followed by myelitis. There is pain on ocular movement and on pressure upon the eyeball. Vision is rapidly impaired within a few days or even twenty-four hours, often to complete loss of light perception. The ophthalmoscope reveals more or less intense optic neuritis. After a variable time of from a few days to a few months sight returns almost completely, unless the subject succumbs to the coexisting myelitis. The mortality is 50%. The ætiology is obscure. Syphilis has been present in many cases. The first patient was a girl of five, with blindness and a lame, dragging leg. The fundus examination suggested retrobulbar neuritis on the right side and optic neuritis on the left. She recovered. The next patient was a boy of twelve. His vision was normal in the right eye, but he had no perception of light in the left. He also had a right-sided paralysis. The symptom complex described by European writers as optic neuromyelitis is in some respects similar to multiple sclerosis with its associated retrobulbar neuritis.

Transplanting the Superior Oblique Muscle in Third Nerve Paralysis.

L. C. PETERS (*American Journal of Ophthalmology*, April, 1934) conceived the idea of using the superior oblique muscle in traumatic paralysis of the internal rectus. He performed the operation on a boy of thirteen. The following is the technique in the author's words: "A small incision was made in the upper lid over the trochlea. By blunt dissection the reflected part of the tendon was exposed and grasped by tenaculum forceps, and the tendon was severed beyond the tenaculum forceps proximally to the globe. The trochlea was carefully exposed and opened without injury to the round tendon. A stout suture was passed through the tendon for subsequent control. A small opening was now made in the capsule of Tenon, from within out, in a suitable position over the internal rectus. Through this opening a small hæmostat was passed, the suture of the tendon was grasped, and the superior oblique muscle was drawn into place and sutured to the attachment of the internal rectus tendon. The excess length of the superior oblique was cut off. The capsule and conjunctiva were closed by interrupted silk sutures. Both eyes were bandaged and the bandages were allowed to remain in place for five days."

Extraction of the Dislocated Lens under Ultra-Violet Light.

To facilitate the removal of a lens dislocated into the vitreous, H. R. Hildreth (*American Journal of Ophthalmology*, May, 1934) suggests that it should be done under ultra-violet light. The crystalline lens has the property of fluorescing under ultra-violet light, thus rendering the otherwise invisible lens visible during operation. The author uses a lamp with a carbon arc, filtered through a violet glass sold under the name "Heat Resisting Red Purple Ultra". The lamp is fixed to throw the light upwards to the surgeon's head, from which it is reflected by a head mirror on to the patient's eye.

OTO-RHINO-LARYNGOLOGY.

Otosclerosis.

ALBERT A. GRAY (*The Journal of Laryngology and Otology*, October, 1934) reports upon two cases of otosclerosis examined pathologically and one of them clinically, and discusses the ætiology of the disease. He gives the following summary. The essential causative factor of otosclerosis is a gradually increasing defect in the vasomotor mechanism which governs the nutrition of the structures of the organ of hearing as a whole. The axone reflexes are, of course, included

in this vasomotor mechanism, and the stimulus which excites the vasomotor mechanism is sound and sound alone. Consequently the vestibular apparatus and the semicircular canals are unaffected in otosclerosis. There is no evidence whatever of any defect in any of the endocrine glands or their secretions in otosclerosis. Neither is there any evidence of any defect in the bone metabolism of the body. On the contrary, the subjects of otosclerosis are, apart from their deafness, perfectly normal individuals, with ordinary average health. The deafness of otosclerosis bears very little relationship to the extent of the disease in the bone. The deafness may be very severe when the stapes is hardly fixed at all. The severity of the tinnitus bears no relationship to the extent of the disease in the bone. The extent of the change in the bone bears very little relationship to the duration of the disease. The extent of the changes in the bone appears to depend upon the age of onset of the disease. The earlier the time at which the otosclerosis begins, the more extensive will the bone lesion become. The deafness of otosclerosis is to a large extent functional and the result of the insufficient supply of blood to all the nerve structures concerned in the perception of sound. The preponderance of women as subjects of otosclerosis is the result of the greater instability of their vasomotor system and the more frequent disturbances to which it is exposed. The changes in the bone show a remarkable bilateral symmetry, even to minute details. This symmetrical distribution is readily explained by the writer's view of the causative factor of otosclerosis. The vasomotor nerves governing the nutrition of the organ of hearing are anatomically symmetrical like other nerve structures in the body. If, therefore, structural changes occur as a result of defective functioning of those nerves, such structural changes will naturally be bilaterally symmetrical in their distribution.

Röntgen Therapy in Acute Mastoiditis.

W. P. CHERNIAK AND A. A. GORODETZKY (*The Journal of Laryngology and Otology*, October, 1934) record their results of Röntgen therapy in acute mastoiditis. They began the study of the question of Röntgen therapy of acute mastoiditis in 1928, and up to the end of 1931 had investigated forty-four cases with the following results: in 50% of cases complete recovery occurred, in 25% considerable improvement was manifest, in 20% the results were unknown, and 5% of cases were failures. In the last-mentioned cases operation was required. Among these forty-four patients the authors had no case with intracranial complication and no fatal issue. The patient lies on his back, the shoulder of the affected side being raised, whilst the head is sharply turned towards the healthy side. The auricle is turned upwards by the patient's fingers. The centration is directed to the surface of the mastoid process, which is thus fully exposed to the X rays—an area of the mastoid process 3·0 by 4·0 square centimetres for big mastoids and 2·0 by 3·0 square centimetres for small mastoids, with a dose of 110 kilovolts and a filter of two millimetres of aluminium with a focal distance of 24 centimetres from the filter at an angle of from 60° to 90°; half a skin erythema dose is given. The interval between the first and second applications is four to five days; between the second and third, ten days; between the third and fourth and fourth and fifth, fourteen days. The authors conclude that Röntgen therapy is a powerful and stimulating remedy in cases of acute mastoiditis. Röntgen therapy should be applied in all cases of acute mastoiditis without complications; the sooner therapy is applied, the better. Röntgen therapy is a method which does, in many cases, obviate the necessity for surgical interference.

Tracheotomy for Tuberculosis of the Larynx.

F. C. ORMEROD (*The Journal of Laryngology and Otology*, August, 1934) records four cases of tuberculosis of the larynx in which tracheotomy was undertaken. In every case the tracheotomy was performed because of severe dyspnœa, which was always much worse during the night; and in two cases oxygen inhalation was used. All four patients were treated in bed with absolute rest and complete silence; but in every instance the condition was too far advanced when the patient was first seen for this method to be effective soon enough to avoid tracheotomy. Tracheotomy was performed under local anæsthesia and presented no difficulties or unusual features. Of the four patients, two had no constitutional disturbances after tracheotomy, but their pulmonary condition was quiescent. A third, with active disease in the lungs but no bacilli in the sputum, had a slight constitutional disturbance, but quickly recovered and lived for nearly two years. The fourth, in whom the disease was very active, and in whose sputum bacilli were present, died three weeks later with very marked acceleration of the pulmonary disease. In no one of these cases was tracheotomy performed with a therapeutic aim. In each case it was urgently necessary. The effect that its performance had upon the larynx is noted. In Case I the dyspnœa was due to adhesion of the vocal cords and fibrous stenosis following lupus. Even two years after the tracheotomy there was no improvement. In Case II the dyspnœa was due to great œdema and swelling, and though after tracheotomy there was some slight improvement, there was never enough to allow the patient to dispense with the tracheotomy tube. In Case III the fixation of the vocal cords was responsible for the dyspnœa and has remained unaltered for seven months since the tracheotomy. There has been some slight reduction in the swelling of the ventricular band. In Case IV there was no alteration in the laryngeal picture during the three weeks the patient lived. As a result of these four cases support is given to the opinion that tracheotomy will be attended with great risks in the presence of active disease in the lungs, though it is apparently safe in cases in which the disease is inactive. The amount of improvement achieved in the larynx appears to be very slight and is not sufficient to justify tracheotomy for therapeutic reasons. Tracheotomy should be done only for severe dyspnœa, and every effort should be made by means of rest and other therapeutic measures to relieve dyspnœa before surgical relief is undertaken.

Tuberculosis of the Larynx.

G. McD. VAN POOLE (*Archives of Otolaryngology*, August, 1934) discusses tuberculosis of the larynx and concludes that laryngeal and pulmonary tuberculosis are mutually interdependent manifestations of the same disease. Treatment of the first should be guided by, and run parallel with, the course of the pulmonary disease. Modern and intensive treatment of the disease as a whole is the first and most essential measure. In properly selected cases electrocautery offers the best results in laryngeal tuberculosis. The cautery is used directly through a Haslinger short one-sided laryngoscope, or indirectly with the use of a laryngeal mirror. The throat is sprayed with cocaine hydrochloride and the larynx is anæsthetized, a mixture of two parts of epinephrine and one of a 20% solution of cocaine hydrochloride being used and applied with a camel's hair brush. A sharp-pointed cautery is used, brought to red heat and inserted to a depth of one centimetre into the tuberculous area. The cautery must be removed with the current on full. The cautery treatment is repeated not oftener than every two or three months. There are certain definite contraindications to the use of electro-cautery. These are: rapid progression of the pulmonary lesion, unusually high temperature or any other manifestation of extreme toxicity; lesions of the larynx of the tumour type, in which the inflammatory reaction resulting from cautery may seriously impair breathing by blocking the airway; idiosyncrasy to cocaine hydrochloride in the form of unusually rapid pulse and symptoms of shock appearing after the preliminary spraying with the drug. In the cases unsuited for cautery palliation of symptoms must be resorted to in order to assure the patient of the conservation of such chances as he may have for recovering. The laryngologist must work in close cooperation with the physician to obtain the best results.

British Medical Association News.

ANNUAL MEETING.

THE ANNUAL MEETING OF THE QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the B.M.A. Building, Adelaide Street, Brisbane, on December 14, 1934, DR. THOMAS A. PRICE, the President, in the chair.

ANNUAL REPORT OF COUNCIL.

The annual report of the Council was taken as read on the motion of Dr. Gavin H. Cameron, seconded by Dr. Ellis Murphy, and was adopted on the motion of Dr. T. A. Price, seconded by Dr. D. A. Cameron. The report is as follows:

THE Council has pleasure in presenting the following report on the work of the Branch for the year ended November 15, 1934.

Membership.

The membership of the Branch is now 493, as against 500 in 1933. The additions have included: Election of new members, 7; transfers from other Branches, 16; reelected, 1: members reinstated upon payment of arrears of subscription, 13.

The losses have been due to: Transfers to other Branches, 23; resignations, 3; default in payment of subscription, 13; deceased, 5.

The Council regrets to record the deaths of the following members: Dr. P. S. Clarke, Dr. F. Challands, Dr. E. A. Lermitte, Dr. R. A. Meek, and Dr. Cecil Uren.

Meetings.

General.

Ten ordinary meetings of the Branch were held (including the annual general meeting), two of which were clinical meetings. One special general meeting was held to consider a proposal for the erection of new premises for the Branch. The average attendance at the general meetings was 32.

Council.

Twenty-two ordinary meetings and three special meetings were held by the Council. At the special meetings the following matters were considered: Proposed Building Scheme for the Branch and the question of Tropical Hygiene.

The record of attendance of members of the Council was as follows:

	Ordinary.	Special.
Dr. Thos. A. Price (President)	22	3
Dr. W. N. Robertson (President-Elect)	11	1
Dr. Alex. P. Murphy (Past-President)	19	2
Dr. Kenneth Wilson (Honorary Secretary)	19	2
Dr. M. Graham Sutton (Honorary Treasurer and Honorary Curator of Museum)	17	2
Dr. Ellis Murphy (Assistant Honorary Secretary)	17	2
Dr. Gavin H. Cameron (Chairman of Committees)	21	2
Dr. Neville G. Sutton (Honorary Librarian)	15	0
Dr. D. Gifford Croll (Federal Council Representative and Councillor)	18	3
Dr. E. S. Meyers (Federal Council Representative and Councillor)	15	3
Dr. J. Grahame Drew (Councillor)	13	2
Dr. F. W. R. Lukin (Councillor)	12	1
Dr. N. W. Markwell (Councillor)	21	3
Dr. S. F. McDonald (Councillor)	15	2
Dr. M. S. Patterson (Councillor)	18	3
Dr. D. E. Trumpy (Councillor)	15	0
Dr. R. G. Quinn (Councillor)	21	1
Dr. J. G. Wagner (Councillor)	22	3

Scientific Meetings.

February.—Dr. Alan E. Lee: "Chronic Indigestion".

March.—Clinical meeting, combined with the Hospital for Sick Children, Brisbane, Clinical Society.

April.—Dr. A. V. Meehan: "The Treatment of Suppuration in Bones and Joints".

May.—Dr. J. V. Duhig: "Causes of Death—A Review of Five Hundred Autopsies".

June.—Joseph Bancroft Memorial Lecture, delivered by Dr. C. Bickerton Blackburn: "The Nervous Factors in Disorders of the Heart".

July.—Dr. P. A. Earnshaw: "Treatment of Dysentery in Children".

September.—Jackson Lecture, prepared by Dr. Eric Jeffrey, of Hobart: "The Ancient Romans Through Medical Eyes".

October.—Clinical meeting, combined with the Mater Misericordiæ Hospital Clinical Society.

November.—Dr. Ellis Murphy: "The Diagnosis of Intracranial Tumours".

Dr. Neville G. Sutton: "The Treatment of Intracranial Tumours".

The following is the personnel of the committee responsible for the arrangement of the programme of papers: Dr. N. W. Markwell, Dr. R. G. Quinn, and Dr. J. G. Wagner, together with the *ex officio* members of the Council.

The majority of the papers were illustrated by lantern slides, and at the various meetings many interesting cases and specimens were exhibited.

The Royal Australasian College of Surgeons.—Members of the Branch were invited to attend the annual meeting of the Queensland Division of the Royal Australasian College of Surgeons which was held on August 17, 1934, when a paper was given by Dr. H. S. Stacy, of Sydney: "A Plea for the Closer Study of Surgical Pathology".

Office-Bearers.

The following were the office-bearers elected by the Council:

Assistant Honorary Secretary: Dr. Ellis Murphy.

Honorary Treasurer and Curator of Museum: Dr. M. Graham Sutton.

Chairman of Committees: Dr. Gavin H. Cameron.

Honorary Librarian: Dr. Neville G. Sutton.

Honorary Secretary.

Dr. Kenneth Wilson was again elected to the position of Honorary Secretary of the Branch.

Dr. Wilson is not standing for reelection as Honorary Secretary. For three years Dr. Wilson has filled the position. The other members of the Council express their appreciation of the tact, industry and skill with which he has carried out his duties. Few members of the Association realize the amount of time and thought that the Honorary Secretary has to give in the course of his work. Dr. Wilson has filled the position most creditably.

Councillors.

Dr. Mervyn S. Patterson and Dr. D. E. Trumpy, who have rendered valuable service as members of the Council for a number of years, are not candidates for election as Councillors for next year.

Ethics Committee.

At the annual meeting of the Branch the following were reelected members of the Ethics Committee: Dr. A. H. Marks, Dr. J. B. McLean, Dr. G. P. Dixon, Dr. D. A. Cameron, Dr. J. A. Cameron.

Two meetings of the Ethics Committee were held during the year.

Library.

No new books have been added to the Branch library during the year.

Representation.

During the year the Branch was represented as follows:

Council of the British Medical Association: Sir Thomas Dunhill.
Representative Body: Dr. A. E. Paterson.
Annual Meeting British Medical Association 1934: Delegates: Dr. T. B. Law and Dr. C. L. Paine.
Federal Council British Medical Association in Australia: Dr. D. Gifford Croll and Dr. E. S. Meyers.
Australasian Medical Publishing Company Limited: Dr. D. Gifford Croll.
THE MEDICAL JOURNAL OF AUSTRALIA: Dr. Joyce Stobo.
Medical Officers' Relief Fund (Federal): Dr. W. N. Robertson, Dr. D. Gifford Croll, and Dr. J. Cameron Hemsley.
Queensland Cancer Trust: Dr. B. L. W. Clarke and Dr. M. Graham Sutton.
Queensland Bush Nursing Association: Dr. N. W. Markwell.
Australian and New Zealand Association for the Advancement of Science, 1935 Meeting: Dr. J. V. Duhig.
Animal Health Board: Dr. D. Gifford Croll.
Queensland Medical Board: Dr. Alex. P. Murphy, Dr. Mervyn S. Patterson, and Dr. Kenneth Wilson.
Standards Association of Australia, Queensland State Committee: Dr. W. N. Robertson and Dr. E. O. Marks.

Subcommittees.

Hospital.

Personnel: Dr. E. S. Meyers, Dr. N. W. Markwell, Dr. Neville G. Sutton, Dr. R. G. Quinn, and the *ex officio* members of the Council.

Fourteen meetings were held during the year, the subjects of general interest being as follows:

Federal Hospital Policy.—It is hoped that the hospital policy for all the Branches in Australia will be finalised in the near future, which should result in a more consolidated effort on the part of the profession to solve the hospital problem.

As a result of the general meeting of Congress held at the Hobart Session of the Australasian Medical Congress of the British Medical Association in January last, it was apparent that the position in Queensland is more acute than in the other States. This is evidenced also by the amount of correspondence received from our members during the year with regard to the unsatisfactory position which exists.

Cooperation between Public Hospital Staffs and Medical Practitioners.—The Honorary Staff of the Brisbane Hospital submitted copy of a form in use in London for the purpose of obtaining better cooperation between public hospital staffs and medical practitioners, whereby patients are referred back to the doctors who sent them to hospital. The Council approved of a similar scheme being put into operation here, and promised to do all that it can to further it.

Private Hospital Records.—The Brisbane City Council was approached with regard to certain regulations governing private hospitals, with the result that a recommendation was made by the City Medical Officer of Health whereby case records of patients are now only liable to inspection by the City Medical Officer. Previously such records had been open for inspection by lay health inspectors as well.

General.—A hospital board, which called for applications for the positions of medical superintendent and resident medical officer, advertised requesting applicants to state amount of salary required. It was pointed out that this method of advertising was against the ethical principles of the Association, and the hospital board in question subsequently readvertised the positions, stating the amount of salary offered.

Members are still experiencing trouble through not having written agreements with the hospital authorities when taking up positions. The Council has been approached by several members with regard to certain difficulties which have arisen, but owing to the absence of an agreement the Council is placed in an invidious position.

Rules and Ethical.

Personnel: Dr. N. W. Markwell, Dr. E. S. Meyers, Dr. Neville G. Sutton, Dr. R. G. Quinn, and the *ex officio* members of the Council.

Twenty-one meetings were held, and in addition to matters of a personal nature, subjects of general interest which received consideration were as follows:

Proposed Medico-Legal Society.—The question of the desirability of inaugurating a Medico-Legal Society in Queensland is under consideration by the medical and legal professions. The object of such an organization would be to deal with questions of mutual interest to both professions.

Additional Rule Regarding the Administration of Anæsthetics.—The necessary steps are being taken to have the following proposed By-law added to the By-laws of the Branch:

> 87 (*a*) Where a legally qualified medical practitioner is available no member shall be a party to or in any way associated with the administration of a general anæsthetic to any patient unless such general anæsthetic is administered by a legally qualified medical practitioner.

Queensland Birth Control Association.—A request was received for affiliation of the Branch with this Association and the appointment of a representative to the committee, to which a reply was sent to the effect that no official recognition can be given to this organization by the Branch.

Broadcasting Health Talks.—This matter has been before the Federal Council, and it was reported that the Director-General of Postal Services has asked for specific instances of broadcasts which the British Medical Association considers misleading and harmful. Members are asked to report any irregularities they may hear in connection with broadcasts on health.

Confidential Information to Insurance Companies Regarding Proponents.—A copy of an opinion of the solicitors of the Federal Council relative to this matter was received. It was found, however, that it did not appear to conform to Queensland law.

"*Answers to Correspondents*" (*Medical*) *in the Lay Press.*—In reply to an inquiry as to the attitude of the Branch with regard to a member undertaking "Answers to Correspondents" in the medical column of a newspaper, it was stated that the Council does not approve of members accepting such appointments.

Definition of "A Specialist".—Discussion has taken place from time to time relative to the qualification of a medical practitioner to entitle him to be classed as a "specialist" in any particular branch of medical practice. In this connexion attention is drawn to a statement that appeared in the Supplement of *The British Medical Journal* of December 16, 1933, which was approved by the representative body as to the criteria to be applied for a consultant.

> (i) That he has held hospital or other appointments affording special opportunities for acquiring special skill and experience of the kind required for the performance of the services rendered, and has had actual recent practice in performing the service rendered or services of a similar character; or
>
> (ii) that he has had special academic or post-graduate study of a subject which comprises the service rendered, and has had actual recent practice as aforesaid; or
>
> (iii) that he is generally recognized by other practitioners in the area as having special proficiency and experience in a subject which comprises the service rendered.

Re Salaries Paid to Pathologists.—An inquiry was made regarding this matter, and a reply was sent expressing the opinion that the minimum salaries for pathologists should be as follows:

	Per annum Nett.
Whole-time Director of Pathological Department	£1,000
Whole-time Senior Pathologist	£750
Whole-time Junior Pathologist	£450

Cremation—Re Medical Certificates.—This matter is receiving consideration as to who is responsible to the medical practitioners for payment of certificates issued in connection with cremation, and the amount payable.

"*Who's Who in Australia*".—It has been decided by the Federal Council that it is permissible for members to have their names included in this publication. Particulars to be published therein regarding members must be submitted to the Council of the Branch for approval. *Who's Who in Australia* is the full title of the only publication of this nature in which it is permissible for members' names to be included.

Public Health.

Personnel: Dr. D. Gifford Croll, Dr. E. S. Meyers, Dr. J. Grahame Drew, Dr. R. G. Quinn, and the *ex officio* members of the Council.

Five meetings were held, and many important matters concerning public health were dealt with.

Director-General of Health.—One of the most momentous events in the history of the health of the State is the reorganization of its health services and the appointment of a Director-General of Health. This is the first step in the direction of the formation of a Ministry of Health which has been long advocated by the Branch.

Tropical Hygiene.—The warning issued by the Branch last year has been fully justified by the serious outbreaks of tropical diseases which have occurred within recent months in various parts of the State. The Council drew attention to the dangers of the withdrawal of the Commonwealth Health Department from the field of tropical hygiene, which involved the closure of the Australian Institute of Tropical Medicine at Townsville and the abolition of the Division of Tropical Hygiene.

One of the first duties of the Director-General of Health for the State will be to deal with this problem.

Non-Notification of Infectious Diseases by Medical Practitioners.—Members of the Branch were warned that the Commissioner of Health intends in future to exercise his powers by proceeding against any medical practitioner who fails to fulfil the requirements of the Health Acts and Regulations in connection with the notification of infectious diseases.

Medical Practitioners Acting as Health Inspectors.—Country members were informed that the Council is opposed to medical practitioners accepting appointments as health inspectors.

The Health Inspectors' Association of Australia.—At the annual conference of this Association held on July 31, the President of the Branch, Dr. T. A. Price, delivered a lecture on "Mosquito-Borne Diseases". He also supported a vote of thanks to His Excellency the Governor.

Re Holidays—State School Children.—Representation has been made to the Director of Education pointing out that at present State school children do not get any holidays between January and August, as the April-May period has been abolished. As the first months of the year are the most trying, a rearrangement of the school periods was advocated.

Control of the Manufacture and Use of Heroin.—In view of the fact that the League of Nations (Traffic in Opium and other Dangerous Drugs) Technical Committee expressed the opinion that heroin can be entirely dispensed with if physicians will use alternatives and will test and examine the newer morphine derivatives, this matter is receiving consideration by the Federal and State health authorities, and also by the Federal Council of the British Medical Association. The Council of the Queensland Branch is of the opinion that heroin should not be withdrawn, as it is impossible to express an opinion until the new salts have been brought to the notice of medical men by placing before them literature on the subject, and they have had an opportunity of using them and comparing results. At present it is considered that heroin is indispensible.

Re Ephedrine.—The question as to whether it is desirable that a preparation containing not more than 1% of ephedrine should be exempted from the provisions of Poisons Regulations (No. 21) received consideration. The opinion was expressed that the sale of such a preparation should not be allowed except on the presentation of a prescription of a registered medical practitioner.

Re Railway Employees engaged on Electric or Oxy-Welding with reference to Eyesight.—The Chief Mechanical Engineer of the Railway Department at Ipswich requested a definition of the age at which employees could be engaged on electric or oxy-welding with regard to eyesight. This matter was referred to the Eye, Ear, Nose and Throat Section of the Branch, from whom a report was received, which was forwarded on to the inquirer.

Malnutrition Amongst the Population.—A report that malnutrition existed amongst the children of a certain district was investigated and found to be groundless.

Building.

Personnel: Dr. D. Gifford Croll and Dr. S. F. McDonald, together with the *ex officio* members of the Council.

Five meetings were held to consider proposals for erecting a building on the "Bayview" site on Wickham Terrace. It was finally decided not to proceed with any of the schemes at the present juncture.

The President, Dr. T. A. Price, has kindly made a donation to the Branch of the amount loaned by him to the building fund. This action is much appreciated.

Publicity.

Personnel: Dr. F. W. R. Lukin, Dr. Mervyn S. Patterson, Dr. D. E. Trumpy, and the *ex officio* members of the Council.

Statements were published in the Press regarding regulations gazetted recently in regard to "Certified Milk Supplies", and also on the question of tropical hygiene.

Parliamentary.

Personnel: Dr. E. S. Meyers, Dr. J. G. Wagner, and the *ex officio* members of the Council.

No meetings were held during the year.

Lodge.

Personnel: Dr. D. Gifford Croll, Dr. F. W. R. Lukin, Dr. J. G. Wagner, and the *ex officio* members of the Council.

Report of Contract Practice Section Committee.

Number of meetings: 3 general and 19 committee. The annual meeting was held on July 17, 1934, and the following office-bearers were elected: *Chairman*, Dr. F. W. R. Lukin; *Honorary Secretary and Treasurer*, Dr. H. W. Horn; *Committee*, Dr. J. G. Wagner, Dr. A. J. Foote, Dr. J. L. Selwood, Dr. C. E. Tucker, Dr. A. E. Mason, Dr. R. E. Douglas, Dr. J. W. Ralston, Dr. C. D. Gillies, Dr. D. V. Sheil, Dr. A. W. St. Ledger, Dr. L. G. Hill, Dr. J. A. Lynch.

In November, Dr. Horn's resignation from the position of Honorary Secretary was accepted with regret, and Dr. J. W. Ralston was appointed to the vacancy.

A formula for the fixation of the capitation fee from year to year, based on the Commonwealth Statistician's Nominal Wage Index Number (Adult Males) for Queensland, has been agreed to between the Council of the Branch and the Friendly Societies Medical and Hospital Council. This capitation fee is to be determined annually from the figures for the year by the Registrar (Mr. G. Porter). The capitation fee fixed for the twelve months beginning July 1, 1934, is 24/– net. This amicable agreement is largely due to the energy and patience of the President of the Branch, Dr. T. A. Price.

A matter of importance to medical officers holding lodge appointments was agreed to by the Friendly Societies Medical and Hospital Council, that is, where a doctor is unavoidably unable to attend to an urgent lodge call owing to other urgent work, then he shall not be held responsible for the fee if another doctor is called in by the patient.

During the year Dr. Price, Dr. Lukin and Dr. Wagner were nominated by the Contract Practice Section for appointment by the Council to a joint committee of the British Medical Association and the Friendly Societies Medical and Hospital Council to discuss matters of interest to both bodies.

The position with regard to juvenile lodge members was classified to a certain extent. It was agreed that juvenile lodge members should be subject to certain conditions, namely: (i) Income limit, (ii) examination before admission, (iii) reexamination at age of sixteen years. The question of whether the taking of juvenile members by doctors should be optional is still under discussion.

At the request of the Friendly Societies Medical and Hospital Council, a list of consulting hours of all members holding lodge appointments in the metropolitan area is being prepared for the use of the lodges.

The appointment of a medical referee to deal with lodge cases has been approved.

During the year many routine matters affecting lodge practice in city and country areas were dealt with by the Contract Practice Section Committee.

Sections for Special Branches of Medical Knowledge.

Eye, Ear, Nose and Throat Section.

Inaugurated 1924. The following office-bearers were elected at the annual meeting held on March 21, 1934: *President*, Dr. Earnest Culpin; *Vice-President*, Dr. George Thomson; *Councillor*, Dr. C. E. Wassell; *Auditor*, Dr. L. T. Jobbins; *Honorary Secretary and Treasurer*, Dr. Athol Quayle.

It was decided that the next annual meeting should be held in November.

Two quarterly meetings were held at the British Medical Association Rooms—one on July 19, and the other on September 18. There was a good attendance at each meeting. Cases of special interest were exhibited and discussed.

Surgical Section.

Inaugurated February, 1927. The office-bearers for the current term are as follows: *President*, Dr. J. M. Thomson; *Honorary Secretary and Treasurer*, Dr. Alan E. Lee; *Committee*, Dr. E. S. Meyers, Dr. H. S. McLelland, and Dr. M. Geaney.

This Section has held regular meetings at the scheduled times throughout the year, with an average attendance of twelve members.

Papers were presented by Dr. E. S. Meyers, on "Surgery of the Chest"; by Dr. Harold Crawford, on "Backache, with Special Reference to Lower Back Strain"; by Dr. A. D. D. Pye, on "Delayed Treatment of Appendicitis".

An exhibition of cinematograph films, followed by a discussion, completed the programme.

Obstetrical Section.

Inaugurated November 15, 1927. The sixth annual meeting of the Section was held on January 17, 1934, when the following office-bearers were elected: *President*, Dr. B. L. Hart; *President-Elect*, Dr. Elliot-Smith; *Treasurer*, Dr. H. S. Waters; *Secretary*, Dr. L. H. Foote; *Statistical Committee*, Dr. R. G. Quinn, Dr. Elliot-Smith, and Dr. L. H. Foote.

It was decided at this meeting to recommend to the incoming committee to continue the preparation of statistics of case records, and to hold a meeting every six months. There has been rather a falling off in enthusiasm for the records of late, and the committee would welcome a return of old members and the added support of new ones.

Medical Section.

Inaugurated June 1, 1928. *President*, Dr. S. F. McDonald; *Honorary Secretary*, Dr. T. H. R. Mathewson.

Three meetings of the Section were held during the year. On March 19, Dr. Ellis Murphy read a paper entitled "Recent Work in Anæmia". On June 18, Dr. Eustace Russell read a paper entitled "A Series of Cases of Peptic Ulcer". On September 10, Dr. N. W. Markwell opened a discussion on "Coronary Disease as an Accident within the Meaning of the Workers' Compensation Act" (at the request of the Council of the British Medical Association). A subcommittee was appointed to draw up a report on this matter. The meetings have been well attended, and the interest in the work of the Section has been well maintained.

Radiological Section.

Inaugurated March, 1930. *Chairman*, Dr. B. L. W. Clarke; *Honorary Secretary*, Dr. J. W. Heaslop. A meeting was held on May 16, 1934, by this Section of the British Medical Association, to consider a letter from Dr. A. T. Nisbet, of Sydney, *re* the formation of an Australian Association of Radiology with New Zealand, and the question of the Brisbane Section joining up with same and appointment of a representative to act at a preliminary meeting which was held at Canberra, April, 1934.

It was decided to join, and Dr. V. McDowall was asked to act as representative, which position he accepted.

Affiliated Local Associations.

Downs and South-Western Medical Association.

British Medical Association Contract Medical Service.—This report covers the period ending September 30, 1934.

Dispensing. At the time of the last annual general meeting arrangements for dispensing service were still under discussion with the chemists. It was finally arranged in October last that the Friendly Societies Medical Institute and Hibernian Australasian Catholic Benefit Society Dispensaries and Mr. Mitford should provide dispensing service at the new rate of 14/– per member *per annum*.

In January last the Hibernian Australasian Catholic Benefit Society Dispensary intimated a desire to cease dispensing for us at the end of March, and accordingly their services terminated on March 31 last. Mr. Mitford and the Friendly Societies Medical Institute Dispensary are still providing dispensing facilities for us.

Numbers. There has been some falling off in numbers. From 401 financial members in October last, there was a decline to 355 in December. A recovery to 375 occurred in March, and from this numbers have fallen to their lowest level of 326 for August last.

Meetings. There have been five meetings of the Contract Medical Service Subcommittee, dealing mainly with questions connected with dispensary service. There was one meeting of the Complaints Subcommittee.

Local Association Affairs.—Meetings. Eleven monthly general meetings have been held since the last report, and eight meetings of the executive. All meetings, with one or two exceptions, have been well attended.

Visiting Lecturers. The following visiting lecturers have addressed us: At the last annual general meeting Dr. L. Jarvis Nye spoke on "Recent Advances in Medicine". In October Dr. Elliot-Smith addressed us on "The Artificial Termination of Pregnancy". In December Dr. V. McDowall lectured on the "Treatment of Skin Cancer". In February Dr. Markwell spoke on "The Treatment of Heart Disease", and in April Dr. Power delivered his lecture on "Blood Transfusion", Dr. Trennery presenting the laboratory aspects of the problem. In May Dr. Alan Lee addressed a meeting in Warwick on "Chronic Indigestion". Our June lecturer was Dr. Gifford Croll, who spoke from an interesting personal experience on "Common Acute Infectious Diseases". In August Dr. Crawford addressed us in Warwick on "Fractures, from the Country Practitioner's Viewpoint". On September 15, Dr. Bruce Mayes gave a lecture on a gynæcological subject.

Some interesting clinical material has been shown at some of the Toowoomba meetings, but no purely clinical meetings have been held this year. At the November meeting Dr. A. Row, of Toowoomba, contributed an interesting paper to a discussion on problems connected with splinting of lower limb fractures.

Cinema Film. The film based on Kanavel's book "The Diagnosis and Treatment of Infections of the Hand" was shown at the July meeting, and greatly appreciated. In this connexion and in the matter of arrangements for visiting lecturers we are once more under deep obligation to the Post-Graduate Course Committee of the State Branch.

Visits to Other Centres. A feature of this year's programme has been the effort made by the Executive to arrange for meetings at other centres of our local division. Though the attempt to secure a meeting at Dalby was not successful, we did have two very successful meetings (both socially and from an instructional point of view) at Warwick in May and August, the Warwick members, as usual, extending us a warm and generous hospitality.

We also had the pleasure in June of visiting Ipswich as the guests of the Ipswich Hospital Clinical Society, by whom we were entertained at dinner, enjoying afterwards a lecture by Dr. S. F. McDonald on "Undersized Children".

Acknowledgements. As in the past, our grateful acknowledgements are due to the authorities of the Toowoomba General Hospital for their courtesy in providing facilities for our monthly meetings and for the hospitality of the supper arrangements.

Dr. Price, in addition to housing the Contract Medical Service, provides for us a convenient meeting place for the various committees.

The Post-Graduate Course Committee in Brisbane have extended us every assistance in the working out of our year's syllabus, providing speakers as nearly as possible to the subjects of our choice, and on many occasions the use of their excellent lantern.

Membership. At present there are 26 financial members.

C. V. HICKEY,
President.
J. G. MORRIS BEALE,
Honorary Secretary and Treasurer.

Rockhampton Local Medical Association.

In February, 1934, the annual meeting of the above Association was held. The officers for the ensuing year were elected, and are as follows: *President*, Dr. J. B. Gordon; *Vice-President*, Dr. D. B. Walker; *Secretary*, Dr. Trevor Parry.

A request from the Secretary of the Medical Institute that medical officers agree to a collection fee of 1/– per lodge member was considered. My Association was not agreeable to this.

Several meetings were held to consider means of attempting to rectify the disadvantages general practitioners are under-

going, especially in regard to the present hospital system. Finally, a subcommittee consisting of the President, Dr. O'Brien, Dr. Wooster, and Dr. G. E. M. Stewart, was appointed to recommend to the Association any action regarding this.

A clinical meeting was held in August, and several cases were shown. Dr. North also read a paper on "Some Aspects of Human and Murine Leprosy".

(*Signed*) TREVOR A. PARRY,
Honorary Secretary.

Bundaberg Local Medical Association.

This Local Association has nothing to report.

The Townsville Local Association.

I have pleasure in furnishing herewith a report to your Council of the proceedings of the Townsville Local Association.

The Local Association was reorganized on June 21, 1933. A paper was read by Dr. L. M. McKillop on "Tumours of the Breast, With Special Reference to Cancer". Dr. Breinl was appointed Chairman for the year 1933. July: A clinical meeting was held. August: Clinical cases were shown. Dr. L. Halberstater discussed head injuries, and Dr. W. J. Chapman discussed head injuries from the ophthalmological point of view. September: A combined meeting of pharmacists and local practitioners was held. Mr. Duffield, Pharmacist, delivered an address on the new British Pharmacopœia, and its effects locally. October: Dr. A. E. Richards read a paper on "Urinary Excretion in Normal and Abnormal Conditions of the Kidney". Dr. A. Breinl read a paper on nephritis. November: A presentation was made to Dr. Richards, of the Tropical Laboratory, who had been transferred. December: Dr. V. F. O'Neill read a paper on "Jaundice", and Dr. A. Breinl read a paper on "The Value of Liver Tests".

In March, 1934, Dr. Taylor was elected Chairman for the year 1934. Business of a general nature was transacted. April: Dr. H. A. Sundstrup read a paper on the national and professional aspect of birth control. May: Clinical meeting *plus* a film demonstration on treatment of cancer of the breast by radium implantation. June: A luncheon to Dr. Mervyn Archdall by the Chairman and members was held at the Queen's Hotel. The June meeting was held on June 7, 1934, and two Kodak films—(i) Cæsarean section, and (ii) breech presentation—were demonstrated. On June 27, 1934, a special meeting was called to meet Dr. Cilento and Dr. McCallum of the Commonwealth Health Services. It was resolved to support the proposed extension of tropical work in North Queensland. The suggestion of a Tropical Congress, to be held in Townsville or Cairns, was supported. July: Films were shown demonstrating Böhler's method of plaster technique on the lower humerus and on fractured forearm. August: Clinical meeting was held. September: Dr. T. Cotter, of the Tropical Health Laboratory, spoke on the history of Weil's disease, its symptoms and demonstrated *post mortem* specimens in guinea-pigs, and also leptospira, isolated from the liver of the guinea-pig. Dr. H. A. Sundstrup read a paper on "The Peope, the Practitioner and the Public Hospital". October: Film demonstration—suprapubic prostatectomy.

(*Signed*) L. HALBERSTATER,
Honorary Secretary.

North Coast Medical Association.

Your President is pleased to be able to report a year of continued progress. Four meetings have been held—two at Gympie, and two at Nambour. At each of these members have presented cases or given lectures of clinical interest. In addition to our own efforts we have had the interested assistance of the Post-Graduate Committee and of individual practitioners of eminence in their particular specialities.

The lecturers during the year were: November 25, at Nambour, Dr. Ellis Murphy, "The Ætiology and Treatment of Anæmias". Dr. Alan Lee, "The Diagnosis and Treatment of Certain Abdominal Conditions". March 17, at Gympie, Dr. Eustace Russell, "Cases in a Medical Ward". Dr. Hugh McLelland, "Cervicitis: Its Significance, Pathology and Treatment". July 14, at Nambour, Dr. A. V. Meehan, "Mal-union and Non-union of Bones". Dr. P. A. Earnshaw, (*a*) "The Apple Diet in the Treatment of Dysentery", (*b*) "Diet in the Treatment of Disease of the Tonsils and Adenoids". September 29, at Gympie, Dr. S. F. McDonald, "Outsizes in Children". Dr. Neville Sutton, "Fractures of the Superior Extremity".

To these gentlemen we offer our grateful thanks.

Attendances at all meetings have been satisfactory, and we have always been glad to welcome a number of honorary members and visitors at our meetings.

The number of members stands at eighteen, the same as last year, while the list of honorary members (including those who are such *ex officio*) totals twenty-seven.

(*Signed*) L. MORRIS,
President.

Cairns Local Association.

During the year the Cairns Medical Association has held several clinical meetings. Dr. R. W. Cilento was the only visitor to address the members of the local branch. It is to be regretted that some of the men specialising in different branches of the profession are unable to spare a few hours of their holidays to give a short paper to the members when passing through Cairns.

Through the death of the late Dr. P. S. Clarke the Branch suffered a great loss. He had for many years held the position of Honorary Secretary, and had always given freely of his time towards helping the activities of the Association.

A few minor difficulties with the local hospital board have come up for consideration during the year, and have been settled amicably.

(*Signed*) T. G. HEWITT.

Post-Graduate Committee.

Personnel of the Committee: Chairman, Dr. S. F. McDonald; *Vice-Chairman*, Dr. A. V. Meehan; *Honorary Secretary-Treasurer*, Dr. L. W. N. Gibson; Dr. Alex. Murphy, Dr. E. S. Meyers, Dr. Neville Sutton, Dr. Kenneth Wilson, Dr. Ellis Murphy, Dr. J. V. Duhig, Dr. C. E. Wassell, Dr. K. B. Fraser, Dr. R. E. Douglas, Dr. L. M. McKillop, Dr. F. W. R. Lukin, Dr. P. A. Earnshaw, Dr. H. J. Windsor, Dr. Elliot-Smith, Dr. D. A. Cameron, Dr. Alan E. Lee.

Meetings.—During the year 1933-34 the committee met fourteen times, including eleven general monthly meetings and three special meetings.

In October of last year the committee held its second annual refresher course, which was very successful and much appreciated, especially by the country members. The membership numbered 44, including 14 from the country, many of the latter making long journeys from the far northern and western districts in order to attend.

This year the committee decided to combine the Post-Graduate and refresher courses into a single extended course of nine days' duration. This was held in the latter part of May, and attracted 77 members, including 21 from the country. Again the outlying districts were well represented, and the course was a very successful one.

Visiting lecturers included Dr. C. B. Blackburn, who also delivered the Bancroft Oration; Dr. G. Kaye, "Anæsthetics"; and Dr. W. A. Hailes, "General Surgery"; also Professor Marshall Allan and Dr. Flora Innis. Many interesting lecture demonstrations were given by various Brisbane lecturers, and altogether the course was very instructive and comprehensive in nature. There was an excellent response from members, and all lectures and demonstrations were well attended.

Country Lectures.—Many visits were made by Brisbane lecturers under the auspices of the Post-Graduate Committee to centres outside the metropolitan area, including Toowoomba, Ipswich, Nambour, Gympie and Lismore, these lectures being greatly appreciated by the various local members who attended.

Conference.—An informal conference of representatives of the various State Post-Graduate committees was held in Hobart during the Australasian Medical Congress in January last, the Queensland committee being represented by Dr. S. F. McDonald and Dr. Neville G. Sutton. At this meeting numerous relevant matters were discussed.

General Business.—In March the committee purchased a portable optiscope with a view to assisting Brisbane members delivering lectures in country centres. This purchase has already proved a very useful one in this respect.

Social.—On May 24 the committee's annual ball was held at Lennon's Hotel, and was attended by its usual success.

Forthcoming Activities.—The committee has been fortunate enough to secure the services of Professor John Fraser, of Edinburgh, to deliver a lecture in Brisbane during his visit to Australia for the forthcoming annual meeting of the Royal Australasian College of Surgeons in March of next year.

(*Signed*) L. W. N. GIBSON,
Honorary Secretary.

Joseph Bancroft Memorial Lecture.

Dr. C. Bickerton Blackburn, O.B.E., of Sydney, delivered the Joseph Bancroft Memorial Lecture on June 1, 1934, at the Geology Theatre of the University of Queensland, the title being "Nervous Factors in Diseases of the Heart".

There was a large attendance, which included representatives, of the Board of Faculties of the University and of the Council of the Royal Society.

At the conclusion of the lecture Dr. Blackburn was presented with the Joseph Bancroft Memorial Medal by the President of the Branch.

Jackson Lecture.

The Jackson Lecture this year was prepared by Dr. Eric Jeffrey, of Hobart, and was read by Dr. Alex. P. Murphy. The title of the lecture was "The Ancient Romans Through Medical Eyes".

Dr. E. Sandford Jackson, in whose honour the lecture is held, was present at the meeting, and proposed the vote of thanks to the writer of the paper.

Federal Council.

Two meetings of the Federal Council were held during the year, the first on January 15 at Hobart, and the second on August 27 at Sydney. Dr. D. Gifford Croll and Dr. E. S. Meyers, the representatives of the Branch, attended the Hobart meeting, and at the Sydney meeting Dr. T. A. Price took the place of Dr. Meyers, who was unable to be present.

A report of the proceedings of both meetings was published in THE MEDICAL JOURNAL OF AUSTRALIA of February 10 and September 15, 1934.

Australasian Medical Congress (British Medical Association).

Fourth Session, Hobart.

The fourth session of Congress which was held in January last at Hobart was a great success, both from a scientific and a social point of view. The Executive of Congress is to be congratulated on the arrangements made for the meetings, and also for the entertainment of visitors. There were twenty-seven full members of Congress from this Branch and four non-attending members.

"The Medical Journal of Australia."

During the year we had the pleasure of a visit from the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, Dr. Mervyn Archdall, which provided an opportunity of discussing matters of mutual interest. Dr. Archdall was a guest of honour at the annual dinner of the Branch, and was also entertained at dinner by the Council on the night of the Bancroft Lecture.

Australasian Medical Publishing Company, Limited.

The Board of Management is to be congratulated on the flourishing position of the company.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION (INCORPORATED).

Balance Sheet as at November 15, 1934.

LIABILITIES.	£ s. d.	£ s. d.
British Medical Association, London—Balance Subscriptions Account		70 2 6
Australasian Medical Publishing Company, Limited		55 15 0
Sundry Creditors		22 13 6
English, Scottish and Australian Bank, Limited, Brisbane—Overdraft Building Fund Account	1,546 12 2	
Interest accrued to November 15, 1934	1 16 10	
		1,548 9 0
Loans from Members repayable May 15, 1943	4,997 10 0	
Interest accrued to November 15, 1934	124 18 9	
		5,122 8 9
Annual Dinner Account		9 14 6
Council Dinner Account		2 8 7
Accumulation Account		909 8 7
		£7,741 0 5

ASSETS.	£ s. d.
B.M.A. Rooms, Adelaide Street, Brisbane: Library, Book Cases, Furniture, Lantern, Typewriter *et cetera*	275 0 0
Museum Specimens	5 0 0
Queensland Medical Land Investment Company, Limited: 4,725 Shares of £1 each, paid up to 10s. each, at cost	2,362 10 0
Freehold Property, "Bayview", Wickham Terrace, Brisbane (*less* Depreciation on Building to November 15, 1934, at 5% *per annum*)	3,277 0 0
Furniture in "Bayview" (*less* Depreciation to November 15, 1934, at 10% *per annum*)	246 0 0
Australasian Medical Publishing Company, Limited, Sydney—Two Debentures of £25 each and one of £5	55 0 0
City Electric Light Company, Limited—Deposit Account	4 0 0
Unused Stationery Coupons	3 7 0
English, Scottish and Australian Bank, Limited, Brisbane—Credit Balance, General Fund Account	1,509 7 11
Cash in hand	3 15 6
	£7,741 0 5

M. GRAHAM SUTTON,
Honorary Treasurer.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION (INCORPORATED).

We have examined the above Balance Sheet and have obtained all the information and explanations we have required. In our opinion the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Association's affairs as at November 15, 1934, according to the best of our information and the explanations given us, and as shown by the books of the Association.

Brisbane.
November 23, 1934.

R. G. GROOM & Co.,
Chartered Accountants (Aust.),
Auditors.

British Medical Association, Annual Meeting, Melbourne, 1935.

The date of the annual meeting of the British Medical Association to be held in Melbourne has been fixed for September 9 to 14. It is expected that a party of between 200 and 300 (including ladies) will be coming from overseas. The overseas visitors expect to arrive in Brisbane on Saturday, September 21, and it is very disappointing that they will be unable to spend more than a few hours ashore here whilst their boat is in port.

Queensland Medical Board.

The constitution of this Board has been reorganized during the year, and the personnel now includes three representatives of the Branch, namely, Dr. Alex. P. Murphy, Dr. Mervyn S. Patterson, and Dr. Kenneth Wilson.

The question of the probable influx of foreign doctors into Australia was brought under the notice of the Board at the request of the Federal Council.

The Board has also been requested to issue a list of public duties to be performed by registered medical practitioners similar to that issued by the General Medical Council of England. This matter is under consideration by the Board.

Representation of the Central Council of the British Medical Association.

Sir Thomas Dunhill has succeeded Professor R. J. A. Berry as representative of the New South Wales-Queensland Group on the Central Council of the Association. Professor Berry was not eligible for reelection, through effluxion of time. The thanks of the Branch are due to Professor Berry, who has acted as representative of the Group for the past six years.

Social.

The annual dinner of the Branch was held on May 31 at Rowe's Banquet Hall. The guests of honour included Dr. C. Bickerton Blackburn, Dr. Mervyn Archdall, Dr. Geoffrey Kaye, Professor R. Marshall Allan, and Dr. W. A. Hailes.

The President and members of the Council also entertained the southern visitors at dinner on June 1, prior to the Bancroft Lecture.

Congratulations.

Congratulatory messages have been sent to the following: Dr. J. G. Hunter, on his appointment as General Secretary of the Federal Council of the British Medical Association in Australia; Dr. R. W. Cilento, who has been appointed Director-General of Health for Queensland.

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION (INCORPORATED).

Statement of Receipts and Payments (General Fund) for Twelve Months ended November 15, 1934.

RECEIPTS.	£ s. d.	£ s. d.
November 16, 1933—		
To Credit Balance at English, Scottish and Australian Bank, Limited, Brisbane		891 19 2
„ Cash in hand		3 8 0
November 15, 1934—		
To Subscriptions—		
For remittance to British Medical Association, London	666 3 9	
For remittance to THE MEDICAL JOURNAL OF AUSTRALIA, Sydney	540 17 6	
Queensland Branch Subscriptions	302 17 7	
Organization Fund, Queensland Branch	956 12 0	
		2,466 10 10
„ Subscriptions to Annual Dinner Account		42 15 0
„ Sundry Receipts		7 9 1
„ Australasian Medical Publishing Company, Limited—Interest on Debentures — £55 at 5% *per annum* — twelve months to June 30, 1934		2 15 0
		£3,414 17 1

PAYMENTS.	£ s. d.	£ s. d.
November 15, 1934—		
By British Medical Association, London—Payments on account of subscriptions for 1933 and 1934 collected from members		671 5 4
„ Australasian Medical Publishing Company, Limited — Payments on account of THE MEDICAL JOURNAL OF AUSTRALIA, 1933 and 1934		560 15 0
„ Library Expenditure		39 15 2
„ Branch Expenses—		
Office Salaries and Honoraria	278 11 0	
Printing and Stationery	18 6 1	
Electric Light	14 19 0	
Rent	52 0 0	
Cleaning	42 1 7	
Telephone	16 19 6	
Bank Charges £7 0 1		
Less Exchanges Refunded 6 4 6		
	0 15 7	
Stamps and Telegrams	38 2 5	
Audit Fees and Accountants' Services — to November 15, 1933	12 12 0	
Insurance, Fire and Workers' Unemployment and Compensation	5 11 6	
Renewals and Repairs, Office Furnishings and Electric Light	2 0 10	
Council and General Meeting Expenses, Newspapers and Sundries	15 15 5	
Contribution to Federal Committee	75 7 0	
		573 1 11
„ Annual Dinner Expenditure		41 16 3
„ Furniture and Fittings		12 0 0
„ City Electric Light Company, Limited—Additional deposit on meter		3 0 0
„ Credit Balance at English, Scottish and Australian Bank, Limited, Brisbane		1,509 7 11
„ Cash in hand		3 15 6
		£3,414 17 1

QUEENSLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION (INCORPORATED).

Building Fund Statement of Receipts and Payments for Twelve Months ended November 15, 1934.

RECEIPTS.	£	s.	d.
November 15, 1934—			
To Rent from "Bayview", Wickham Terrace	336	0	0
„ Queensland Medical Land Investment Company, Limited—Dividend, twelve months ended November 25, 1933 ..	118	2	6
„ English, Scottish and Australian Bank, Limited, Brisbane—Debit Balance ..	1,546	12	2
	£2,000	14	8

PAYMENTS.	£	s.	d.
November 16, 1933—			
By English, Scottish and Australian Bank, Limited, Brisbane—Debit Balance ..	1,567	12	6
November 15, 1934—			
By Rates, Land Tax, Insurance and Repairs, "Bayview"	143	8	4
„ Interest..	278	9	10
„ Sundry Expenses	11	4	0
	£2,000	14	8

Finance.

The financial position of the Branch has improved, but it is regretted that 13 members were struck off the membership list for default in payment of subscriptions for 1932, and 51 members still owe their subscriptions for the current year.

General.

Many matters of personal interest were dealt with by the Council on behalf of members.

(*Signed*) THOS. A. PRICE,
President.
(*Signed*) KENNETH WILSON,
Honorary Secretary.

FINANCIAL STATEMENTS.

The financial statements, which are published herewith, were presented and adopted.

ELECTION OF OFFICE-BEARERS.

The President announced the result of the election of office-bearers and members of the Council.

President: Dr. W. N. Robertson.

President-Elect: Dr. M. Graham Sutton.

Past-President: Dr. Thomas A. Price.

Honorary Secretary: Dr. Leslie W. N. Gibson.

Members of the Council: Dr. Gavin H. Cameron, Dr. D. Gifford Croll, Dr. J. Grahame Drew, Dr. Basil L. Hart, Dr. F. W. R. Lukin, Dr. N. W. Markwell, Dr. S. F. McDonald, Dr. E. S. Meyers, Dr. Alex. Murphy, Dr. Ellis Murphy, Dr. R. G. Quinn, Dr. Neville G. Sutton, Dr. J. G. Wagner, Dr. Kenneth Wilson.

On the motion of Dr. M. Graham Sutton, seconded by Dr. Alex. Murphy, Mr. Roy G. Groom was appointed auditor.

ETHICS COMMITTEE.

Dr. J. A. Cameron having resigned from the Ethics Committee, it was proposed by Dr. Gavin Cameron and seconded by Dr. Neville G. Sutton that Dr. G. W. Macartney be nominated for the vacancy. This was carried unanimously.

PRESIDENT'S ADDRESS.

The incoming President, Dr. W. N. Robertson, read his address (see page 1).

INDUCTION OF PRESIDENT.

Dr. T. A. Price then inducted the new President, Dr. W. N. Robertson, to the chair.

Dr. W. N. Robertson thanked the members for electing him to the chair again after a number of years. He proposed a vote of thanks to Dr. T. A. Price. This was carried by acclamation.

VOTES OF THANKS.

Dr. T. A. Price moved a vote of thanks to the retiring Honorary Secretary, Dr. Kenneth Wilson, whose work he praised. Dr. Wilson's services would not be lost, as he had been elected a member of the new Council.

Dr. Price welcomed the new Secretary, Dr. L. W. N. Gibson. A vote of thanks was accorded to Mrs. Spooner.

NOMINATIONS AND ELECTIONS.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Fagan, Kevin James Breheny, M.B., B.S., 1933 (Univ. Sydney), Prince Henry Hospital, Little Bay, Sydney.

Holmes, Raymond Maxwell Glennie, M.B., B.S., 1933 (Univ. Sydney), 707 Military Road, Mosman.

Medical Societies.

THE MELBOURNE PÆDIATRIC SOCIETY.

A MEETING OF THE MELBOURNE PÆDIATRIC SOCIETY was held at the Children's Hospital, Carlton, on September 12, 1934, DR. H. C. COLVILLE, the President, in the chair.

Sinusitis in Children.

DR. CECIL CANTOR read a paper entitled: "Sinusitis in Children" (see page 13).

DR. STEWART FERGUSON agreed with Dr. Cantor about the frequency of sinusitis in children and said he wished to stress the medical aspect. One of the commonest conditions was a persistent rise in temperature after influenza, when physical examination might reveal no abnormality. Frequently this condition persisted for many weeks and was almost always due to a persistence of the sinusitis which usually accompanied the influenza. Then there was the child with chronic cough, usually of a loose, rattly type, in whom the tonsils and adenoids might or might not be present. There was no expectoration, but the cough was affected by posture, being much worse when the child was lying down and on first rising. In very chronic cases, when the antrum wash-out was positive, Dr. Ferguson usually recommended antrostomy, because he found that simple wash-outs had to be repeated many times and were usually insufficient.

The next group comprised the lung affections, such as acute bronchitis, asthma, chronic peribronchitis and bronchiectasis. Yet again cough was the principal symptom and often the tonsils and adenoids had been removed. Mostly he found these children well nourished,

despite assertions to the contrary. He invariably treated these patients in association with a rhinologist, as treatment of the chest condition alone was quite useless. He would like to quote Mullin, who, in *The Journal of the American Medical Association*, wrote:

> Experimental investigations have shown that infection of the paranasal sinuses may be met with in the following stages: acute inflammatory, acute suppurative, chronic suppurative and chronic hyperplastic. Unless recovery takes place it tends to progress in this order. The hyperplastic is by far the most important factor in the causation of chronic chest conditions. The thickened mucosa is deeply infected and bacteria and their products are absorbed through the lymph channels and eventually cause a chronic peribronchial glandular enlargement. Acute bronchitis may be merely coincident with an acute upper respiratory infection, but extension through lymphatics is possible. Asthma may be due to chronic peribronchial infection or reflex causes. Protracted flooding of the lymph channels with infected material tends to produce a chronic peribronchitis. Frequent chest colds may be the first evidence of this, but a definite chronic bronchitis is eventually established, and in a neglected case the final result is bilateral bronchiectasis.

The other medical conditions which Dr. Ferguson met were joint affections and chronic intestinal indigestion. If in these states he found no other foci of infection or dietetic derangements respectively, then he suspected sinusitis till he proved it non-existent.

DR. R. V. HENNESSY said that his remarks were those of practical experience rather than theoretical considerations, and several times in recent years he had changed his mind in regard to sinus disease. First he thought that radiograms were very deceptive. It is difficult to keep the child absolutely still, and anatomical factors made the interpretation difficult because the sinuses were so small. The teeth shadows were also relatively large and confusing. He thought that proof puncture was much more reliable, because it yielded the following information: first, the capacity of the antrum to hold fluid, a swollen mucous membrane reducing this capacity: secondly, the amount of pressure required, because this varied directly with the patency of the opening; thirdly, the presence of secretion. He thought that sinus disease was on the increase, and probably modern conditions of living and the increase of population account for this. In regard to bronchiectasis, he thought that, rather than being cause and effect, the conditions that caused the sinus infection also caused the bronchiectasis. It was commonly thought that the only treatment necessary was to make a hole in the antrum, but he personally adopted a more conservative attitude. Even if a hole were made, bone proliferation followed so rapidly that the opening soon closed, and the whole idea of permanent drainage was quite fallacious. If lavage was carried out efficiently at regular five-day intervals for about ten times and was ineffective, then his experience was that open operation was of no avail either. In these chronic cases he had seen good results from the use of autogenous vaccines, and he thought that visits north from the city areas did much to allow the condition to subside.

DR. H. BOYD GRAHAM said that prophylaxis was a most important factor. Hygienic home conditions, proper diet and correct breathing were all equally important. He agreed with Dr. Ferguson about frequent coughs and colds being due to infected sinuses, and had not found these relieved by simple removal of tonsils and adenoids. Like Dr. Hennessy, he too had seen good results come from the use of autogenous vacccines. Another line of attack was intensive vitamin *A* therapy. Deficiency of this led to much catarrhal mischief in upper and lower respiratory passages, and as the activity of vitamin *A* was increased by irradiation, he thought that irradiation with ultraviolet rays and general heliotherapy were indicated. Dietetic management to insure the presence of all the desirable constituents of a sound diet in proper balance was of more than passing importance. He thought that operations on the tonsils and adenoids should not be performed in the winter months because of risk of upper respiratory sequelæ.

DR. A. P. DERHAM thought that a larger percentage of children with sinusitis had enlarged adenoids than Dr. Cantor's series revealed. He also thought it unwise to order nasal douching by lay people. The forcing of even a bland fluid into the nose was liable to carry infection backwards into unaffected areas and might even cause *otitis media*.

DR. W. KENT HUGHES advocated the use of diathermy for chronic sinusitis. If this were ineffective, he performed antrostomy by electro-coagulation. In many cases, if this were done, the tonsils and adenoids receded.

Congresses.

INTERNATIONAL CONGRESS ON LIFE ASSURANCE MEDICINE.

AN International Congress on Life Assurance Medicine will be held at London from July 23 to 27, 1935. The President will be Professor W. Langdon Brown and the Honorary Secretary, Dr. Otto May. The address of the Honorary Secretary is 142, Holborn Bars, London, E.C.1.

The provisional programme is as follows:

Tuesday, July 23, 1935.

21.00.—Reception to delegates of the Conference.

Wednesday, July 24, 1935.

9.30-10.00.—Formal opening of Congress.

10.00-12.30.—Discussion on methods of estimating risks. Opening papers: Dr. Sturm, Germany, Dr. Chester T. Brown, United States of America.

14.00-17.00.—Discussion on the prognosis of hypertension. Opening papers: Dr. May and Dr. Ollivier, France, Professor Dr. Winternitz, Italy.

Thursday, July 25, 1935.

9.30-12.30.—Discussion on the acceptance of glycosurics. Opening papers: Professor W. Langdon Brown, England, Professor van den Bergh, Holland.

14.00-17.00.—Discussion on gastro-intestinal ulceration and life assurance. Opening papers: Professor Romanelli, Italy, Dr. Faroy and Dr. Carrié, France.

19.30.—Conference banquet.

Friday, July 26, 1935.

9.30-12.30.—Discussion on the rôle of health service in life assurance. Opening papers: Dr. O. Neustätter, Germany, and another from the United States of America (name not yet to hand).

14.00-17.00.—Short papers.

Saturday, July 27, 1935.—Excursions.

Subscription.—The subscription for members of the Congress, including the banquet and other social functions, and a copy of the transactions, is £2 sterling. The subscription for lady associate members (limited to one for each member of the Congress) is £1 sterling, to include the banquet and social functions only.

Travel.—If the number of delegates travelling to the Congress is sufficiently large, it is hoped to be able to obtain special terms for travel.

Hotels.—It may also be possible to obtain special rates at hotels.

Further information may be obtained from Dr. R. Scot Skirving, Australian Mutual Provident Society, 87 Pitt Street, Sydney.

Correspondence.

ABSCESS OF THE LUNG.

SIR: The following case may be of sufficient interest to be worthy of publication.

On October 21, 1934, I saw R.M., a very nervous boy, aged eight, who had had pain in the left side of his abdomen for four days. He was tender over the descending colon and gave a history of having eaten a lot of unripe loquats.

On October 26, 1934, I saw him again, when he had pain at the left costal margin on coughing and on deep inspiration. Examination revealed a patch of dulness with absence of breath sounds at the left base, in the posterior axillary line.

By November 12, 1934, he had developed a very tender swelling over the same area, which was not red, but which showed a little central fluctuation. I diagnosed a deep-seated abscess, probably an empyema, tracking through the chest wall.

On November 13, 1934, under general anæsthesia, I made an incision over the most prominent part of the swelling, through skin, fat and muscles, and opened into a small abscess cavity between the eighth and ninth ribs, containing about three grammes of pus. On mopping out the cavity I was surprised to find a foreign body about one and a quarter inches long and three-sixteenths of an inch thick, and tapering at each end. Investigation proved this to be a whole head of barley grass. The wound was drained and fomented. The pus gave a pure culture of streptococcus.

Subsequently the patient's mother remembered that five weeks prior to operation he had come to her saying that he had swallowed a "cat's head". This must have been inhaled and found its way via the trachea and lung tissue into the intercostal muscles, where I found it, tracking obliquely towards the surface. The patient made an uneventful recovery, the lung clearing up completely.

Yours, etc.,

C. S. MOLESWORTH, M.B., Ch.M.

Leeton,
New South Wales,
December 9, 1934.

PEDICULI PUBIS.

SIR: Most men and many women, no matter how respectable, make more than a nodding acquaintance with *Pediculi pubis* in the course of their life time. The subject is treated with great levity and according to tradition one application of the famous *Unguentum Hydrargyri* and the parasites are gone.

Nearly four months ago three patients in the male ward of this hospital were found to be infected with the parasite. They had a number of nits in the pubic hair. They were shaved, isolated and treated with the usual blue ointment. Within a few days nineteen patients were found to be infected.

All the usual precautions (and a few extra ones, such as burning down a few lavatories, the sterilization of bedsteads with blow lamps, the sterilization of bedding with superheated steam *et cetera*) were taken.

The epidemic continued. The whole ward was isolated and after two months of an intensive campaign we managed to narrow the infected patients and contacts down to six.

It was found that the nits were most tenacious of life. They were not killed by the usual specifics mentioned in text books, acetic acid, biniodide of mercury, kerosene, petrol and many others. It was found by bitter experience that the only way of controlling the epidemic was to examine the patients repeatedly and to kill the parasites before they had time to lay eggs.

Their favourite playground, the pubic hair, was not popular with this brand of parasite. They preferred the axillary hair and as time went on they sported everywhere on one or two particularly hirsutic patients.

After weeks of what practically amounted to sniping the parasites as soon as they were born, the infected patients were narrowed down to two. These two patients remained chronically infected. For months pediculi had been found on them nearly every day. Their secret was at last discovered. The parasites had emigrated from the body hair and with commendable enterprise had taken refuge in the hair of the head. Whether they had reverted to a former mode of existence I know not. But we were awake to this new move and, like born pioneers, we shaved the head and applied blue ointment.

This is the position as it stands today. The next move of the wily parasite is awaited with the keenest interest. As the patients are clean shaven their last haven is in the eyebrows. Whether they will reach it or not I do not know.

All that I know is that I have learnt to regard the *Pediculus pubis* with the greatest respect. He arrived here uninvited from an unknown source, and he circumvented for months all moves taken to destroy him.

The history of the epidemic, Sir, may be of interest to your readers, and any suggestions they may have to offer for future treatment would be gratefully appreciated.

Yours, etc.,

S. MINOGUE,
Medical Superintendent.

Mental Hospital,
Stockton,
New South Wales,
December 13, 1934.

DRUG ADVERTISEMENTS.

SIR: For a very considerable time now the morning mail of every practitioner has been flooded with advertisements pushing the claims of numberless pharmaceutical preparations. Almost every day he receives a visit from the representative of some drug house, to call his attention to numerous other preparations of supposedly marvellous clinical value. The practitioner at present has no means of judging the value or properties of these preparations, except through the literature supplied to him by the makers or by trying them out on some unfortunate patient. I feel, Sir, that the time has come when direct approach to the practitioner by the manufacturers of proprietary preparations should cease and that such approach should be made to him only through the Association itself. Adequate, authentic information on a preparation would then be available to the practitioner. I feel also that should such a move be possible, it would be welcome both to practitioners and pharmacists.

Yours, etc.,

INGLIS ROBERTSON.

North Sydney,
December 14, 1934.

FRACTURES OF THE SHAFT OF THE FEMUR.

SIR: After reading the discussion on the papers of Dr. Storey and Dr. Teece and noting the exchange of pleasantries which took place, it occurred to me, as one who has had a large experience of these fractures (both in civil and military practice) that there surely must be some reason for the widely varying opinions expressed. May I suggest: (i) That Dr. Storey's high opinion of the Thomas splint for first aid and transport in these cases is on very sound ground. (ii) That it is probably the infrequent use of these splints soon after the accident that allows so much overlapping often to take place, needing (in the experience of many of us) skeletal extension by Schmerz hooks to overcome. It may be that close followers of Robert Jones's methods succeed even in these cases (and I would be loath to suggest otherwise), but with all

the goodwill in the world towards the Liverpool school of surgeons (to which surgery owes a debt of everlasting gratitude), I have not been able to achieve the same results.

That so many stiff knees should have been present in the cases (seen by Dr. O'Reilly) which had had skeletal extension is, I fancy, rather due to not beginning passive movements at the knee joint early enough than to the method of extension.

Dr. Poate is probably quite correct in saying that Thomas splints are part of the outfit of the ambulances; the fact remains that too many cases come to the hospitals with a long Liston on. Possibly insufficient practice in the application of the Thomas splint over the clothing and the adjustment of the extension have created a little lack of confidence amongst the ambulance men. I think also that the class of Thomas splint made in Sydney is not always so good as it might be; in Liverpool this would not occur. Certainly, when giving them a thorough trial for the hospital treatment of these cases, I used to find the patients often suffered much discomfort when the extension pull was very strong.

As I was instrumental in equipping the Second Australian Casualty Clearing Station in the Great War with abundance of Thomas splints (that was in 1915) and helped to induce the Second Army authorities to supply them to the front line medical units so that they could be applied shortly after the soldier was wounded, I cannot be accused of being unsympathetic to them.

I am glad to see from Dr. Storey's paper that Lord Allenby was a keen observer and insisted on them in Palestine. If I remember aright, he was just south of the Second Army in France.

Yours, etc.,

H. S. STACY.

175, Macquarie Street,
Sydney,
December 15, 1934.

MATERNAL MORTALITY.

SIR: I am sure that the sentiment expressed in the opening of your able leader on the above subject (December 1, 1934) is endorsed by all members of the medical profession. In it is passed in review the measures that have been adopted in Australia during the last decade designed to at least mitigate the evils of maternal morbidity and mortality. Reference is also made to the New York Report (1933). This work, which is the most recent investigation into the subject, is probably the most valuable statistical record that has yet appeared. A fact clearly shown in the report is that a great many puerperal deaths were certified under causes other than sepsis, whereas the follow-up inquiry showed that a considerable number should have been so certified. The corrected figures increased the rate due to sepsis in New York by one hundred *per centum* and consequentially reduced that due to "other causes". A similar *questionnaire* in like communities would no doubt have a commensurate effect upon their official figures. So now we know where we are! The fact remains that practically all of these deaths from sepsis are preventible. Of other maternal deaths a varying proportion are preventible and on corrected figures are shown for the first time to be in a minority. We now know that the big problem is the prevention of puerperal sepsis. Our growing fears we have been loath to express, but they have been only too well founded. Nothing remains but to make a clean breast of the situation. The man in the moon has known about it a long time; now the man in the street knows it.

At the annual meeting of the British Medical Association held at Bournemouth an important discussion resulted from a combined meeting of the Sections of Obstetrics and Gynæcology, which is very fully reported in *The British Medical Journal*, August 4, 1934. The openers invited those present to answer the question: "Are we satisfied with the results of antenatal care?" The answer was: "No." That the question was given so much prominence clearly shews that it was considered that the institution of antenatal care was sufficiently advanced to have a definite influence on the reduction of maternal mortality. As this effect has so far not been evident, a halt was called at Bournemouth to ask: "Why?" The chief reason, not emphasized at the combined meeting, is that antenatal supervision can never have any influence in preventing puerperal infection, though it has been confidently predicted that it would. It has been assumed that the early recognition of impending dystocia and the correction of the abnormalities assumed to foreshadow it would lead to a lessened amount of instrumental interference. This in turn would avoid the risk of infection. Statistics have shown over a long period of years, and in many places, that instrumental delivery is not the foremost material factor in the incidence of sepsis. *Prima facie* there is a greater risk, but in practice its possibilities have not deterred many busy practitioners from resorting to it frequently. This revelation is of great import. It simply means that sepsis may attend the simplest and the most complicated delivery in indiscriminate proportion. From this we may conclude that a virulent infection conveyed to a port of entry is not concerned, however gaping or however minute that portal may be. The question is: "Who conveys it?" This question has been answered. The latest incriminating document is the New York report. The guilt is fastened upon the attendant, who may be doctor or nurse. The latest theory is that droplet infection is scattered by the doctor, and the suggestion mitigates the gravity of his offences. This plea is not so readily made available to the nurse, and statistics show that as a factor it is negligible amongst her class. This fact should discount a defence so specious. Even granting that droplet infection is a real danger, it suggests that the environment in which the doctor is employed is most insalubrious and inordinately charged with all the pathogenic forms known to clinical medicine, which includes surgery. Then many of us are carriers in the widest sense of that word. Would it not be worth while to inquire into the reason of this ubiquity and promiscuousness? By ablating this septic endemicity prevention would begin at the right end and doctors would learn to control infections which notoriously gain virulence in the community not unlike their behaviour in concentration camps. Where else does he gather the poisoning seed of sepsis? There is no refuge in autogeny, and the proverbial immunity of the slums mystifies us no longer. It is from this hitherto untried point of attack that the fears and dangers of childbirth will find relief. There is in fact no other way on the evidence before us. The measures recommended to date are quite familiar to all and, though meritorious, have been proved insufficient and ineffective. Something now must be added to these, and that which will be most salutary is a widespread campaign against the undue prevalence of sepsis in all departments of practice. The fault is not peculiar to the practice of obstetrics, and it is in the recognition of this fact that salvation lies.

Yours, etc.,

A. C. F. HALFORD.

Brisbane,
December 17, 1934.

SEROLOGICAL PROBABILITY OF PATERNITY.

SIR: I have studied with great interest the note of Dr. J. V. Duhig on proof of paternity in THE MEDICAL JOURNAL OF AUSTRALIA, December 22, 1934, page 814.

I fear the calculation of probability is less simple than Dr. Duhig supposes. Even if it be known that the mother or mothers of the three children were one and all of Groups *A* or *O* and so could not have contributed substance *B* to the children's blood, and that there was no likelihood that all the children had as father one man of Group *B* (or *AB*) other than the reputed father, the case is not analogous to that of drawing four aces in succession from one shuffled pack of fifty-two cards without returning each one as drawn, the chance of which, as Dr. Duhig tells us, is 1 in 270,750.

The case is analogous to that of drawing three aces in succession (not four, because the relation of the father to himself is certain) and drawing these three aces not from one pack of fifty-two cards, but from a huge pack made up of many hundreds of ordinary packs each of fifty-two cards: the chance of this is approximately 1 in 13 × 13 × 13, that is, 1 in 2,197.

Similarly, if persons of the serological Group *B* form 7% of a population, the chance that a random sample of three children will all be of Group *B* (that to which the reputed father is known to belong) is approximately 7 × 7 × 7 in 100 × 100 × 100, that is, 343 in 1,000,000, that is, 1 in 2,915 nearly—a small chance indeed, but far less remote than the 1 in 270,750 given by Dr. Duhig.

Yours, etc.,

GUY GRIFFITHS.

Sydney,
December 24, 1934.

DONORS FOR BLOOD TRANSFUSION.

SIR: In your issue of November 24, 1934, Dr. Brooke Moore, in the rules drawn up for the donors for blood transfusions, makes the following statement: "Donors are to be directly typed against the patient except in extreme urgency, as blood groups change." I wish to question the latter part of this statement, which is directly opposed to the views of modern authorities, both English and Continenal, and to ask Dr. Brooke Moore through your columns whether he can produce any evidence for such a statement, which strikes at the foundations of the theory of the heredity of blood groups, or whether the statement is due to his not being conversant with the modern literature.

Yours, etc.,

EVA A. SHIPTON, M.B., B.Sc.

137, Macquarie Street,
Sydney,
December 20, 1934.

Proceedings of the Australian Medical Boards.

TASMANIA.

THE undermentioned have been registered, pursuant to the provisions of the *Medical Act*, 1918, of Tasmania, as duly qualified medical practitioners:

Peters, Sheila Rosa, M.B., B.S., 1933 (Univ. Melbourne), Scottsdale.

Counsell, Walter Duff, M.B., B.S., 1926 (Univ. Melbourne), Macquarie Street, Hobart.

Green, Ernest Joseph, M.B., B.S., 1933 (Univ. Melbourne), Derby.

Tunbridge, Ewan Ballantyne, M.B., B.S., 1926 (Univ. Melbourne), Public Hospital, Launceston.

Analytical Department.

"GEELONG DARK LAGER."

"GEELONG DARK LAGER" is manufactured by the Volum Brewing Company, Limited, Geelong, Victoria. The manufacturers claim that this beer is free from cane sugar and is a suitable beverage for diabetics.

The results of analysis submitted by the manufacturers are as follows:

Percentage of proof spirit	4·00
Total reducing substances (non-fermentable), grammes per 100 c.cms.	1·60
Extract, grammes per 100 c.cms.	7·25
Maltose	A trace
Saccharose	Absent

Samples of "Geelong Dark Lager" have been submitted to our analysts, who have found as follows:

Absolute alcohol, by weight	1·66%
Total solids, grammes per 100 c.cms.	7·50
Reducing sugars as anhydrous maltose, grammes per 100 c.cms.	2·58
Dextrins, grammes per 100 c.cms.	1·93

Preservatives such as sulphur dioxide, benzoic acid and salicylic acid were absent.

Our analysts point out that, assuming "Geelong Dark Lager" to have approximately the same protein content as normal beers (0·27 gramme per hundred cubic centimetres) and allowing a calorific value of seven calories per gramme for alcohol, the total calorific value of "Geelong Dark Lager" would be 173 calories per pint. This is lower than the average for beers, but is due solely to the low alcohol content, as the following table shows:

Observation.	"Geelong Dark Lager" (calories per pint).	Average Beer (calories per pint).
Calorific value due to protein and carbohydrates	107	78
Calorific value due to alcohol	66	155
Total	173	233

In regard to the effect of alcohol on diabetics, the position is clearly stated by Joslin, who writes: "Alcohol does not contain carbohydrates, but the oxidation of one gram in the body gives rise to seven calories. If enough alcohol is taken to make the diet above calorific needs, sugar appears in the urine, as it would after excess of protein or fat."

Medical practitioners know that caution is necessary in prescribing beer for diabetics. Obviously the whole calorific value of beer must be considered. If the prescription of beer should be necessary, "Geelong Dark Lager" might be found a suitable substitute for ordinary beer.

Obituary.

CARLTON ATKINSON ELLIS.

WE regret to announce the death of Surgeon-Commander Carlton Atkinson Ellis, which occurred on December 12, 1934, at Brighton, Victoria.

Honours.

NEW YEAR HONOURS.

HIS MAJESTY THE KING has been pleased to confer the following honours on medical practitioners.

Dr. R. W. Cilento, Director-General of Health of Queensland, has been created a knight.

Dr. W. Ernest Jones, Inspector-General of Mental Hospitals, Victoria, has been created a Commander of the Most Distinguished Order of Saint Michael and Saint George.

Dr. Alexander Reginald McLeod has been created an Officer of the Most Excellent Order of the British Empire.

The congratulations of the medical profession are extended to Sir Raphael Cilento, Dr. Jones and Dr. McLeod.

Books Received.

INTERNAL MEDICINE: ITS THEORY AND PRACTICE IN CONTRIBUTIONS BY AMERICAN AUTHORS, Edited by J. H. Musser, B.S., M.D., F.A.C.P.; Second Edition; 1934. Philadelphia: Lea and Febiger. Royal 8vo., pp. 1307, with illustrations.

WHAT OF THE CHILD? By A. Kefalas, M.A., M.B., Ch.B.; 1934. London: William Heinemann (Medical Books) Limited. Crown 8vo., pp. 205. Price: 5s. net.

POCKET MONOGRAPHS ON PRACTICAL MEDICINE: COMMON GYNÆCOLOGICAL CONDITIONS AND THEIR TREATMENT, by R. C. Brown, M.B., M.S., F.R.C.S., M.C.O.G.; 1934. London: John Bale, Sons and Danielsson. Foolscap 8vo., pp. 118. Price: 2s. 6d. net.

Medical Appointments.

Dr. G. M. Oxer (B.M.A.) has been appointed Medical Officer of Health by the Nannup Road Board, Western Australia.

* * *

Dr. R. E. Murray (B.M.A.) has been appointed a Quarantine Officer, Queensland, under the *Quarantine Act*, 1908-1924.

* * *

Dr. R. J. Coto (B.M.A.) has been appointed Quarantine Officer, District Medical Officer and Resident Magistrate at Wyndham, Western Australia.

* * *

Dr. H. L. Chester (B.M.A.) has been appointed a Member (*ex officio*) of the Koorda and Districts Centennial Hospital Board, Western Australia, under the provisions of *The Hospitals Act*, 1927.

* * *

Dr. E. S. Morris (B.M.A.) has been appointed Member and Chairman of the Nurses' Registration Board of New South Wales.

* * *

Dr. E. S. Morris (B.M.A.) has been appointed a Member of the Board for the Protection of Aborigines, pursuant to the provisions of the *Aborigines Protection Act*, 1909, New South Wales.

Medical Appointments Vacant, etc.

FOR announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser", pages xiii, xiv, xv.

AUSTIN HOSPITAL FOR CANCER AND CHRONIC DISEASES, HEIDELBERG, VICTORIA: Resident Medical Officer, Honorary Assistant Surgeons.

BRITISH MEDICAL AGENCY, LIMITED, SYDNEY, NEW SOUTH WALES: Resident Medical Officers.

CHILDREN'S HOSPITAL, CARLTON, VICTORIA: Resident Medical Officers.

DEPARTMENT OF THE INTERIOR, CANBERRA, F.C.T.: Medical Officer.

LAUNCESTON PUBLIC HOSPITAL, LAUNCESTON, TASMANIA: Resident Medical Officers.

METROPOLITAN INFECTIOUS DISEASES HOSPITAL, NORTHFIELD, SOUTH AUSTRALIA: Resident Medical Superintendent.

PRINCE HENRY'S HOSPITAL, MELBOURNE, VICTORIA: Resident Medical Officers.

ST. GEORGE DISTRICT HOSPITAL, KOGARAH, NEW SOUTH WALES: Honorary Officers.

THE AUSTRALIAN INLAND MISSION, SYDNEY, NEW SOUTH WALES: Medical Officer.

THE BRISBANE AND SOUTH COAST HOSPITALS BOARD, QUEENSLAND: Honorary Officers.

THE OTAGO HOSPITAL BOARD, DUNEDIN, NEW ZEALAND: Resident Medical Officer.

WATERFALL SANATORIUM, WATERFALL, NEW SOUTH WALES: Senior Medical Officer.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 135, Macquarie Street, Sydney.	Australian Natives' Association. Ashfield and District United Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham United Friendly Societies' Dispensary. Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney. North Sydney Friendly Societies' Dispensary Limited. People's Prudential Assurance Company Limited. Phœnix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association, Proprietary, Limited. Mutual National Provident Club. National Provident Association. Hospital or other appointments outside Victoria.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane Associate Friendly Societies' Medical Institute. Chillagoe Hospital. Members accepting LODGE appointment and those desiring to accept appointments to any COUNTRY HOSPITAL are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.
SOUTH AUSTRALIAN: Secretary, 207, North Terrace, Adelaide.	Officer of Health, District Council of Elliston. All Lodge Appointments in South Australia. All Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, 205, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (Wellington Division): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

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